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California High School Exit Examination (CAHSEE): Year 2 Evaluation Report

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California High School Exit Examination (CAHSEE): Year 2 Evaluation Report

Executive Summary

Background

California has moved through the second year of its schedule for requiring graduation exams in mathematics and ELA beginning with the Class of 2004. As is the case in nearly half of the states in the country, California began this initiative in response to widespread support for high standards and for some mechanism that holds students to them. This component of California's testing program is intended to ensure that all students graduating from high school can demonstrate grade level competency in reading, writing, and mathematics. The California Education Code, Chapter 8, Section 60850, specifies requirements for the California High School Exit Examination (CAHSEE). Since January 2000, the California Department of Education (CDE) has worked with a development contractor, the American Institutes for Research (AIR), throughout the development and tryout of test items for use in the CAHSEE and to develop and implement procedures for operational administration, scoring, and reporting. The first operational administration to 9th graders on a voluntary basis was completed in March and May of 2001. Results from these administrations will be released in August 2001.

The California legislation specifying the requirements for the new exam also called for an independent evaluation of the CAHSEE. CDE awarded a contract for this evaluation to the Human Resources Research Organization (HumRRO). HumRRO's efforts focus on analyses of data from the field test of items (test questions), the field administration of the test, the annual administrations of the CAHSEE, and use of these analyses to report on trends in pupil performance and pupil retention, graduation, drop-out, and college attendance rates. As specified in the legislation, the evaluation reporting will include recommendations for improving the quality, fairness, validity, and reliability of the examination. This report describes evaluation activities through June 2001, summarizes the results of these activities, and offers initial recommendations based on conclusions drawn from these results. It should be noted that this is a report of yearly activities; we have had a relatively short time frame in which to examine the operational test and longitudinal survey results. The current report is a contractual requirement and not one of the reports mandated in the legislation specifying the evaluation. More comprehensive results from the March and May administrations will be included in the next mandated evaluation report required by February 2002.

There were four main activities in Year 2 of the evaluation:

- HumRRO conducted a special census survey of all high school districts in California at the request of the State Board of Education (SBE). Results from this survey, which examined awareness of CAHSEE, preparations and expectations for the exam, and baseline student outcomes, were reported fully at the end of the fall semester (Sipes, Harris, Wise, & Gribben, 2001).
- Researchers analyzed data from the Fall 2000 Field Test of CAHSEE questions. Results of these analyses are presented in Chapter 2 of this report.

- HumRRO personnel observed the March and May 2001 operational administration of the CAHSEE, analyzed the results available from the March administration, and reviewed plans for reporting, including determination of the minimum passing scores. Results of these activities are described in Chapter 3 of this report.
- The research team conducted a Spring 2001 survey of teachers, principals, and test coordinators in the longitudinal sample of schools we are following as part of our evaluation. Results from the test coordinator survey are included in Chapter 3. Results from the teacher and principal surveys are presented in Chapter 4 of this report.

Summary of Year 2 Activities and Results

CAHSEE Fall 2000 Field Test. Results of the Spring 2000 Field Test indicated that nearly all of the items had acceptable statistical properties and could be used on operational CAHSEE forms. Additional test questions, however, were needed to cover particular standards and to support the assembly of multiple test forms. Additional test questions were developed by AIR and included in a second field test conducted in Fall 2000.

HumRRO's analyses address the following three general issues:

- What proportion of items has good statistical properties?
- Were the questions included in the second field test significantly different in quality and difficulty from the questions in the first field test?
- How difficult are the questions that address specific standards and did the difficulty level vary among different demographic groups?

The test questions in the Fall Field Test were found to be of similar difficulty and quality in terms of statistical properties to the questions in the Spring 2000 Field Test despite the fact that the Fall Field Test questions were newly developed and had not been subjected to extensive prior screening. For each subject, 20 questions from the Spring Field Test were repeated in each of the Fall Field Test forms to provide a means for adjusting item difficulties for differences between the two field tests in student achievement levels. Tenth graders in the Fall Field Test performed somewhat worse (a drop of 4.5 in the average percent correct responses) on math questions in comparison to 10th graders in the Spring Field Test who had had seven more months of instruction. For the ELA questions, however, students in the Fall Field Test performed slightly better. Analyses of the questions by content standard indicated that there were sufficient questions for each standard to construct several unique test forms. The relative difficulties of questions for different standards were similar to those reported in our Supplemental Year 1 Report (Wise, Sipes, Harris, Collins, Hoffman, & Ford, 2000).

Observation and Analysis of the March 2001 Operational Administration. Chapter 3 presents our observation and analyses of the results of the March 2001 administration of the CAHSEE. The first section of this chapter describes test administration issues. HumRRO observed focus groups of district testing coordinators, a training workshop for test coordinators, and administration of the CAHSEE at three sites. In addition, a survey was administered to test coordinators at the schools in our longitudinal sample (described in Chapter 4). Findings indicated that while the schools varied in the ways they conducted CAHSEE, school staffs were well prepared and generally provided good test conditions. The

most striking overall feature was how seriously the students took the test. Logistical issues at school sites included balancing extended time with test security, particularly for the ELA exam. One other issue was that both our observations and our survey indicated a low frequency of use of testing accommodations.

In examining results from the March administration, HumRRO staff computed item statistics and found that items performed close to original expectations with respect to the difficulty and information value of each item. Staff observed item-scoring procedures for the two essay questions and analyzed the consistency of scoring results. Two different readers judged each essay and sufficient agreement was reached more than 99% of the time for the first essay and roughly 98% of the time for the second essay. Where disagreements did occur, there was a systematic process for their resolution.

HumRRO examined the process for setting minimum passing scores. The standards-setting process included a reasonable mix of teachers, other educators, parents, and businessmen and women who were broadly representative of their peers across the state. The standards-setting process was well specified and engendered a relatively deep discussion of the skill requirements of specific items and the importance of these requirements. Some panel members were surprised at the relatively low passing rates for the standards they had proposed. Following discussions, few wanted to change the standards and, in the end, the median ratings did not change. Both the mathematics and ELA panels recommended that the minimum passing score be set at about 70 percent of the total possible points on each test. The SBE subsequently concurred with a recommendation from the Superintendent to adopt initial passing criteria that were more lenient. The passing criteria for the Class of 2004 were set in recognition of the fact that the new content standards were not yet in place when these students were in earlier grades where essential prerequisite skills are taught. The passing levels approved by the Board, 60% of the possible points for ELA and 55% for math, are provisional pending review of results for 10th graders next year.

Using the passing levels set by the Board at its June 2001 meeting, we examined passing rates for students who participated in the March administration. Overall, 65% of the students tested in March passed the ELA exam and 45% passed the math exam. Passing rates for students with disabilities in the March administration were considerably lower, at 22% for E-LA and 12% for math. Not surprisingly, passing rates for math varied systematically by the pattern of math courses completed or in progress, ranging from a passing rate of over 90% for students who had completed algebra 1 and were currently enrolled in geometry, down to 18% for students who had not taken and were not currently enrolled in algebra 1. In schools where 500 or more students were tested, passing rates ranged from below 10% to above 90%.

At the end of the CAHSEE exams, students completed a brief questionnaire on their reactions to the test and their plans for high school and beyond. HumRRO examined the responses to these questions separately for students who did or did not pass each of the two tests.

Our analyses of results from the March administration also included an assessment of the accuracy of pass/fail classifications. Based on statistical estimates of measurement error, we defined a “zone of uncertainty” where students were close enough to the minimum passing score that there was some potential for classification to be affected by measurement error.

Inside this zone of uncertainty (defined as the range of scores for which the probability of classification error exceeded 10%) about 70% of the students were correctly classified as passing or failing the test; outside this zone 98% or more of the students were correctly classified. For math the zone of uncertainty was relatively narrow—only 6 score points. Only 12% of the students tested were within this “too close to call” range. For ELA, the zone was a bit wider, 13 of the 90 possible score points, and contained about 20% of the students tested. While the level of uncertainty may seem high, it is no greater than with other testing programs with which we are familiar. In fact, for examinees near the borderline, there will always be some uncertainty, but the consequences of incorrect classification decisions in these cases are not great, particularly where retesting is allowed.

Spring 2001 Survey of Teachers and Principals. Chapter 4 describes results from the second spring survey of teachers and principals from our longitudinal study sample. Issues focused on *awareness, planning and preparation, alignment, expectations, and potential outcomes*. Surveys were administered following the Spring 2001 CAHSEE administrations but prior to results being provided to the schools. Survey results indicated that, overall, both principals’ and teachers’ awareness of the CAHSEE (knowledge of skills covered and familiarity with administration plans) increased from last year. Similarly, principals’ ratings of student and parent familiarity with CAHSEE increased from last year.

With respect to alignment, responses indicated a slight increase in estimated preparedness of students in 9th grade from 2000 to 2001 and a larger increase in predicted preparedness of students in 10th grade. Teachers were asked to identify courses in which particular standards were taught. Many of the courses identified are typically taken during the 10th grade, reinforcing the idea of deferring initial testing until 10th grade.

HumRRO assessed the potential consequences of CAHSEE by examining predicted pass rates, impact on student motivation and parental involvement, and impact on instructional practices. Predicted pass rates, collected before the discussion of passing levels by the State Board, were similar to last year’s predictions and, on average, were reasonably comparable to actual results. A slightly more positive impact on student motivation and parental involvement was predicted for students and parents prior to the first administration than upon receiving pass/fail results from the first attempt. Predictions of the impact of the CAHSEE on student retention and drop-out rates were generally similar in 2000 and 2001, although principals’ predicted impact on student drop-out rates were slightly more negative this year. Teachers continue to expect the CAHSEE to have a positive impact on instruction, and they generally expect that impact to grow increasingly positive over time.

Principals were asked to indicate what actions the school plans to take or has implemented to promote learning for all students. Responses indicate that while a number of actions have already been undertaken to promote student learning, many of these actions have only been partially implemented at this time.

Key Findings and Recommendations

In our earlier evaluation reports, we expressed concern with the time line for implementing the new graduation requirement. Our concern was based on two key questions:

- (1) Would the exam be ready for the students?
- (2) Would students be ready for the exam?

The first question was asked with regard to the risk of problems in the assembling and printing of test forms, with the administration of the test, and with the reporting of results. Based on evaluation activities to date, we offer the following general findings:

General Finding 1: Progress in developing the exam has been noteworthy. We found no significant problems with the exam administered in March 2001 or with plans to report results from that administration.

Given low initial passing rates, there may be a tendency to question the validity of the exam. Our analyses of data from the March 2001 administration, however, showed that all test questions performed as expected. Forms were printed correctly and on time and delivered to districts with few difficulties. Administration of the exam presented a number of significant challenges to schools in finding times and spaces in which to schedule students to take the exam. Even though the March administration was not a practice test, as it appeared for awhile it that might be, it provided a good opportunity to identify logistical and administrative issues to be addressed further in future administrations. The 2002 administrations will be the first time students who have completed much of the 10th grade curriculum will take the exam. Lessons learned from the 2001 administrations should be helpful in improving the process for 2002.

General Finding 2: The process used to establish minimum passing scores was well designed and executed and the resulting passing standards appear reasonable.

There was some concern that the passing scores for the two exams could not be set until data from a census testing of 10th graders were available. With the failure of the urgency legislation (SB 84), SBE was required to set minimum passing scores without normative information on 10th graders. Many experts disagree with the use of normative information and, where it is used, it rarely has much impact on the recommendations of the standards-setting process. CDE and AIR used a systematic process for identifying panels of teachers and others who were very familiar with California standards and students and were broadly representative of the state. The SBE appropriately considered the passing standards as provisional, recognizing concerns that results for students completing the 10th grade curriculum are not yet available.

General Finding 3: Progress on providing all students adequate opportunity to learn the material covered by CAHSEE has been good, but it is too soon to tell whether there will be significant problems in preparing students in the Class of 2004 to pass the exam.

Since our earlier reports expressed concern as to whether all schools could provide the Class of 2004 adequate opportunity to master the standards tested by CAHSEE, a number of changes have occurred:

1. Beginning with the Class of 2004, algebra will be a statewide requirement for high school graduation.
2. Survey results indicate that schools are taking the content standards seriously and have progressed in plans to provide students opportunities to learn these standards.
3. Principals and teachers report that students and parents have a greater awareness of CAHSEE than they did a year ago.
4. SBE plans are in place for adoption of K-8 textbooks aligned to the content standards and to incorporate results of standards-based tests into the Academic Performance Index (API).
5. CDE has launched a campaign for disseminating information about the CAHSEE and the content standards that it covers to districts and schools.

The fact that significant numbers of 9th graders have not yet mastered the standards covered by CAHSEE is not surprising. Results from our Spring 2001 survey suggest that many of the standards are covered by courses most students do not take until the 10th grade. Members of the standards-setting panels were generally optimistic about schools' capacity for bringing students up to standard.

General Recommendation 1: Stay the course. The legislature and Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

Notwithstanding earlier recommendations, we think it best not to alter the current schedule for implementing the CAHSEE requirements at this time. As expected, initial passing rates are low, indicating that many 9th grade students have not yet had the opportunity to learn the material covered by the CAHSEE. Continuing with the current requirement means demanding that schools, teachers, and even parents not give up on the Class of 2004 just because their education to this point may not have been as comprehensive as we would like it to be. Most educators with whom we have spoken are optimistic regarding the potential for most students to master the required content standards given more years of instruction and targeted assistance. Schools and districts have expended considerable effort in improving the curriculum to increase coverage of the state content standards, particularly those covered by CAHSEE. A decision to delay the requirement at this point could be seen as undercutting these efforts.

While we think the state should continue to move ahead, we continue to have concerns, as expressed in our earlier reports and reflected in current discussion over Assembly Bill AB-1609 as to whether all students in the Class of 2004 will have adequate opportunity to learn

the material covered by the CAHSEE by the time they complete the 12th grade. Evidence of opportunities to learn, based on analysis of the curriculum, is, as suggested by some, necessarily limited. ***However, the best evidence that a school system is providing its students adequate opportunity to learn the required material is whether most students do, in fact, learn the material.*** Our evaluation will continue to monitor passing rates by school as an indicator of the extent to which students in these schools have had effective opportunities to learn the required knowledge and skills. A critical factor will be whether schools with the most difficult challenges, as evidenced by initial passing rates, will be given the guidance and resources needed to bring their students up to required levels.

Whether the requirement is deferred or not, it will be very important to give the CAHSEE requirement time to work. The history of state assessment programs shows a lack of stability over any prolonged period of time. For students to achieve the skills embedded in California's content standards, success may take a sustained effort over an extended period of time. "Staying the course" will be required to allow this to happen.

General Recommendation 2: The legislature and Board should continue to consider options for students with disabilities and English learners.

There is significant tension between the desire to have high expectations for all students, including students with disabilities and English learners, and the need to be realistic about what some students can accomplish. Initial low passing rates for both of these groups suggest particular concern with the time it may take to help these students master the required standards. Options to be considered range from more liberal use of accommodations, to some form of alternative diploma for students who cannot reasonably be expected to develop or demonstrate the required skills, and also to deferring the graduation requirement for these students.

Other Specific Findings and Recommendations

Our Year 2 Evaluation Report contains a number of other, more specific findings and recommendations. These include:

- 1. More technical oversight is needed.** Because of the rapid pace of implementation, a number of decisions have been made without technical review of the consequences. Examples are the decision to shorten the tests without public consideration of consequences for test score accuracy and the lack of review of plans for equating scores from the different test forms used in March and May.
- 2. For future classes, testing should be delayed until the 10th grade.** Many students do not receive instruction in important content standards until the 10th grade. Other options should be available for assessing the readiness of 9th graders to pass this exam.
- 3. A practice test of released CAHSEE items should be constructed and given to districts and schools to use with 9th graders to identify students at risk of failing the CAHSEE.** Scoring instructions should be included so that teachers and students can gauge how much additional effort might be needed to reach passing levels. The

practice test should include as much diagnostic information as possible. Alternatively or in addition, research showing linkage between the 8th and 9th grade California Standards Test used for school accountability would support use of scores from this assessment to identify students who need additional help to pass the CAHSEE.

4. **More extensive monitoring of test administration and a system for identifying and resolving issues is needed.** Observation of the initial administration revealed some concern about describing and enforcing procedures for test session breaks so as to maintain test security. In addition, procedures for determining appropriate testing accommodations may need further clarification and reinforcement.
5. **The state needs a more comprehensive information system that will allow it to monitor individual student progress.** It is not clear that school information systems will necessarily support passing along information on problems associated with transfer students who have passed or not passed part or all of the CAHSEE. In addition, research databases on cumulative passing rates for each high school class and on the relationship of CAHSEE scores to results from other tests are needed to answer important policy questions. A mechanism for creating such databases without infringing on student privacy concerns is needed.
6. **The legislature should specify in more detail how students in special circumstances will be treated by the CAHSEE requirements.** A number of students may not have the full range of opportunities to take the CAHSEE. These include students who transfer into the state in the 12th grade, students in the Class of 2003 who, through illness or other unforeseen circumstance, fail to graduate on time and will then be subjected to requirements for the Class of 2004, and English learners who may be exempted from taking the CAHSEE until late in their high school years. Such students would miss out on several opportunities to pass the CAHSEE and end up with at most 3 or 4 chances to pass the test rather than the 8 chances most students would have.

More detailed explanations and rationales for each of these recommendations are presented in the full text of the report.

**California High School Exit Examination (CAHSEE):
Year 2 Evaluation Report
Table of Contents**

List of Tables.....	1
List of Figures	1
 CHAPTER 1: INTRODUCTION	1
Background	1
Organization and Contents of Year 2 Evaluation Report.....	4
 CHAPTER 2: ANALYSIS OF FALL 2000 FIELD TEST DATA.....	6
Introduction.....	6
Field Test Design.....	6
Item Difficulties	9
Item Screening.....	11
Relative Difficulty of Questions by Content Standard.....	13
Summary	24
 CHAPTER 3: RESULTS OF THE MARCH 2001 ADMINISTRATION.....	26
Introduction.....	26
Administering CAHSEE.....	27
Review of Item Statistics.....	33
Review of Item Scoring Procedures.....	33
Setting the Minimum Passing Score	34
Who Passed?	36
Student Questionnaire	40
Test Score Accuracy.....	42
 CHAPTER 4: PRINCIPAL AND TEACHER SURVEYS	45
Introduction.....	45
Survey Development.....	45
Sampling and Administration.....	46
Findings.....	47
Summary	73
 CHAPTER 5: FINDINGS AND RECOMMENDATIONS	75
General Findings	75
 REFERENCES.....	82
 APPENDIX A Standards Taught	A-1
APPENDIX B Principal and Teacher Surveys—Spring 2001.....	B-1
APPENDIX C CAHSEE School Site Testing Coordinator Survey—Spring 2001	C-1

List of Tables

TABLE 2.1	Average Scores by Subject and Field Test Form	9
TABLE 2.2	Average Total Scores by Gender	10
TABLE 2.3	Average Total Scores by Race and Language Fluency	10
TABLE 2.5	Percent of Multiple-Choice (MC) Items Screened Out by Various Statistical Criteria	13
TABLE 2.6	Number and Difficulty of CAHSEE Questions by Test Content Standard:	
	Language Arts—Reading	14
TABLE 2.7	Number and Difficulty of CAHSEE Questions by Test Content Standard:	
	Language Arts—Writing	16
TABLE 2.8	Number and Difficulty of CAHSEE Questions by Test Content Standard: Mathematics	18
TABLE 3.1	Characteristics of Schools Observed	28
TABLE 3.2	Accommodation for Students With Disabilities by School Size *	31
TABLE 3.3	Accommodations Report for All Students Testing in March 2001	32
TABLE 3.4	Scoring Agreement for the Essay	34
TABLE 3.5	Passing Rates for each Test	37
TABLE 3.6	Percent Passing the ELA Exam by Total Essay Score	38
TABLE 3.7	Number and Percent of Students Passing the ELA Exam by Total Multiple Choice Score	38
TABLE 3.8	CAHSEE Math Passing Rate by Math Courses Taken	39
TABLE 3.9	Number of Schools by Passing Rates and Students Tested – ELA	40
TABLE 3.10	Number of Schools by Passing Rates and Students Tested – Mathematics	40
TABLE 3.11	How did you prepare for this test?	40
TABLE 3.12	How important is this test to you?	41
TABLE 3.13	Do you think you will graduate from high school?	41
TABLE 3.14	Will it be harder to graduate if you have to pass a test like this?	41
TABLE 3.15	What do you think you will do after high school?	41
TABLE 3.16	How sure are you about what you will do after high school?	41
TABLE 3.18	Error of Measurement	43
TABLE 3.19	Classification Error	44
TABLE 4.1	Percentage of Principals and Teachers Familiar with CAHSEE and State Content Standards	50
TABLE 4.2	Principals' Responses to Estimated Percentage of Students and Parents Familiar with CAHSEE	51
TABLE 4.3	Principals' Reported Percentages of Preparations for Alignment with State Content Standards	51
TABLE 4.4	Percentage of Principals Reporting Similarity between District and State Standards	52
TABLE 4.5	Percentage of Teachers Indicating Coverage of Standards by Curriculum	52
TABLE 4.6	Principals' and Teachers' Estimated Percentages of Students Meeting CAHSEE Standards	57
TABLE 4.7	Teachers' Ratings of Preparedness of Students in the 9 th and 10 th Grades (in percentages)	58
TABLE 4.8	Principals' Predicted Impact of CAHSEE on Student Motivation and Parental Involvement (in percentages)	63
TABLE 4.9	Teachers' Predicted Impact of CAHSEE on Student Motivation and Parental Involvement (in percentages)	64
TABLE 4.10	Principals' and Teachers' Predicted Impact of CAHSEE on Student Retention and Dropout Rates	65
TABLE 4.11	Teachers' Predictions of Influence of CAHSEE on Instructional Practices Over Time (Percentages)	67
TABLE 4.12	Teachers' (2000) and Principals' (2001) Estimates of the Percentage of Students with Instruction in ELA and Mathematics Content Standards (in percentages)	70
TABLE 4.13	Percentage of Principals Indicating Factors for Students' Success on CAHSEE	71
TABLE 4.14	Percentage of Principals Indicating Actions to Promote Student Learning	72
TABLE A.1	Percent of Raters Listing Each Course and Percent Saying Most Students Take the Course: Mathematics	A-2
TABLE A.2	Courses where Specific Standards are Taught: Mathematics	A-2
TABLE A.3	Percent of Raters Listing Each Course and Percent Saying Most Students Take the Course: ELA	A-4
TABLE A.4	Courses where Specific Standards are Taught: ELA	A-5

List of Figures

Figure 4.1a. Percentage of principals reporting activities undertaken in preparation for the spring 2001 administration of the CAHSEE.....	53
Figure 4.1b. Percentage of teachers reporting activities undertaken in preparation for the spring 2001 administration of the CAHSEE.....	54
Figure 4.2. Percentage of principals reporting plans for remediation of students who do not pass the CAHSEE.....	55
Figure 4.3a. Principals' predictions of percent of students meeting standards by the end of 10 th grade.....	56
Figure 4.3b. Teachers' predictions of percent of students meeting standards by the end of 10 th grade.....	57
Figure 4.4. Teacher's estimates of preparedness of students to pass the CAHSEE in the 9 th and 10 th grades. ...	58
Figure 4.5b. Teachers' predicted impact of the CAHSEE on student motivation and parental involvement of students prior to the first administration.....	59
Figure 4.6a. Principals' predicted impact of the CAHSEE on student motivation and parental involvement of students who pass the exam on the first attempt	61
Figure 4.6b. Teachers' predicted impact of the CAHSEE on student motivation and parental involvement of students who pass the exam on the first attempt.	61
Figure 4.7a. Principals' predicted impact of the CAHSEE on student motivation and parental involvement of students who fail the exam on the first attempt.....	62
Figure 4.7b. Teachers' predicted impact of the CAHSEE on student motivation and parental involvement of students who fail the exam on the first attempt.....	62
Figure 4.8a. Principals' predicted impact of the CAHSEE on student retention and dropout rates.....	64
Figure 4.8b. Teachers' predicted impact of the CAHSEE on student retention and dropout rates.....	65
Figure 4.9a. Principals' prediction of influence of the CAHSEE on instructional practices over time.....	66
Figure 4.9b. Teachers' prediction of influence of the CAHSEE on instructional practices over time.....	67
Figure 4.10a. Principals' estimates of the percentage of students who have had instruction in ELA content standards.....	68
Figure 4.10b. Principals' estimates of the percentage of students who have had instruction in Mathematics content standards.....	69
Figure 4.11. Percentage of principals indicating the percentage of teachers who understand the difference between "teaching to the test" and "aligning the curriculum and instruction to the standards."	72

CHAPTER 1: INTRODUCTION

Background

California has moved into the second year of its schedule of requiring graduation exams in mathematics and English-language arts (ELA) beginning with the class of 2004. As is the case in nearly half of the states in the country, California began this initiative in response to widespread support for high standards and for some mechanism that holds students to them. This component of California's testing program is intended to ensure that all students graduating from high school demonstrate grade level competency in reading, writing, and mathematics. The California Education Code, Chapter 8, Section 60850, specifies requirements for the California High School Exit Examination (CAHSEE). Since January 2000, the California Department of Education (CDE) has worked with a development contractor, the American Institutes for Research (AIR), throughout the development and field testing of items for use in the CAHSEE and the operational tests with 9th graders (on a voluntary basis) in March and May of 2001.

The legislation, specifying the requirements for the new exam, also called for an independent evaluation of the CAHSEE. CDE awarded a contract for this evaluation to the Human Resources Research Organization (HumRRO). HumRRO's efforts focus on analyses of data from the field test of items (test questions), the field administration of the test, and the annual administrations of the CAHSEE, and report on trends in pupil performance and pupil retention, graduation, drop-out, and college attendance rates. As specified in the legislation, the evaluation reporting will include recommendations for improving the quality, fairness, validity, and reliability of the examination.

Plans for conducting the evaluation have been updated each year in response to new and evolving information about plans for developing and implementing the CAHSEE (Wise, Hoffman, & Harris, 2000; Wise, Hoffman, Harris, Sipes, & Ford, 2000). These plans are summarized briefly here to provide a context for the continuing evaluation activities.

The Year 1 evaluation activities involved reviewing and analyzing three types of information:

Review of Test Developer Plans and Reports. No formal reports were available during the first year; thus, we attended meetings and listened to presentations by the development contractor (AIR) and by CDE. We also monitored various presentations to the CAHSEE Panel and to the State Board and had direct conversations with members of each of these groups.

Statewide Data Sources. An initial source of information for our evaluation was data from the CAHSEE pilot administration. We also examined 1999 Standardized Testing and Reporting (STAR; for details see <http://star.cde.ca.gov/>) results with plans to monitor trends in STAR results over the course of the evaluation.

District and School Sample. We selected a representative sample of 24 districts, and approximately 90 of their high schools, to establish a longitudinal group for study. The

baseline surveys, which were administered to principals and ELA and mathematics teachers, provided an initial look at schools' perspectives of the impact of CAHSEE on their programs. We also recruited teachers and curriculum experts from these schools and their districts to review test items and tell us if they covered knowledge and skills not covered for all students in their current curriculum.

The following summarizes the specific recommendations made at the end of the Year 1 evaluation activities.

Recommendation 1. The Legislature and Governor should give serious consideration to postponing full implementation of the CAHSEE requirement by 1 or 2 years.

Recommendation 2. CDE should develop and seek comment on a more detailed timeline for CAHSEE implementation activities. This time line should show responsibility for each required task and responsibility for oversight of the performance of each task. The plan should show key points at which decisions by the Board or others are required along with separate paths for alternative decisions that may be made at each of these points.

Recommendation 3. CDE and the Board should work with districts to identify resource requirements associated with CAHSEE implementation. The Legislature must be ready to continue to fund activities to support the preparation of students to meet the ambitious challenges embodied in the CAHSEE.

Recommendation 4. The Board should adopt a clear statement of its intentions in setting CAHSEE content and performance standards. This statement should describe the extent to which these standards are targeted to ensure minimum achievement relative to current levels or to significantly advance overall expectations for student achievement.

Recommendation 5. The Board should exhibit moderation in selecting content standards and setting performance standards for the initial implementation of CAHSEE. Subsequently, standards should be expanded or increased based on evidence of improved instruction.

Recommendation 6. Members of the CAHSEE Panel and its Technical Advisory Committee should participate in developing recommendations for minimum performance standards.

Recommendation 7. CDE should move swiftly to establish an independent Technical Issues Committee (TIC) to recommend approval or changes to the CAHSEE development contractor's plans for item screening, form assembly, form equating, scoring, and reporting.

Complete details of the Year 1 effort, including selection procedures for the longitudinal sample, are presented in a primary and a supplemental report describing evaluation activities, findings, and recommendations (Wise, et al., 2000a; Wise, et al., 2000b). Those two evaluation reports emphasize both the positive aspects of the results, as indicated by several measures of the quality of the test questions, and the amount of work remaining to be done before operational administration of the CAHSEE. The major apprehension noted in these reports was educators' concern that students are currently not well prepared to pass the exam.

District Baseline Survey Resulting from Year 1 Activities

The results of the baseline survey of teachers and principals in the longitudinal sample of high schools indicated concern with the degree to which students were being provided sufficient opportunities to learn the material covered by the CAHSEE. After reviewing these concerns, the State Board of Education (SBE) and CDE requested an additional survey of all public high school and unified districts in California. HumRRO developed and sent out the CAHSEE District Baseline Survey shortly after SBE adoption of the CAHSEE and its content, which was required prior to October 1, 2000. The survey covered plans for changes in curriculum and other programs to help students pass the examination. We asked that each district have the survey completed by an Assistant Superintendent or Director of Curriculum and Instruction, or the individual at the district level who was most knowledgeable about CAHSEE.

The survey, which built on and benefited from the results of the longitudinal sample survey, addressed five critical topics:

- *Awareness* of the CAHSEE, its content, administration plans, and requirements for student participation.
- *Alignment* of the district's curriculum to statewide content standards, particularly those to be covered by the CAHSEE.
- *Plans and Preparation* for increasing opportunities for all students to learn the material covered by the CAHSEE and to help students who do not initially pass the examination.
- *Expectations* for passing rates and for the effect of the CAHSEE on instruction and the status of specific programs offered in the district.
- *Outcome baselines*, including retention and graduation rates and students' postgraduation plans.

The following general conclusions were drawn from results of the district survey:

General awareness of the CAHSEE is high, but more information is needed, particularly for students and parents, about (a) the knowledge and skills covered by the CAHSEE and (b) plans for administration and reporting.

Districts report high degrees of alignment of their own content standards to the state content standards. The survey addressed this question at a general level; more work is needed to assess and document the degree to which each district's curriculum covers the content standards tested by the CAHSEE and the degree of student access to courses that offer such coverage.

Districts have implemented or are planning a number of programs to prepare students and teachers for the CAHSEE and to assist students who do not initially pass. The most frequently planned activities include more summer school, tutoring, and matching student needs to specific courses.

Districts believe the CAHSEE will have a positive impact on curriculum and instruction. Most expect at least half of their students to pass the CAHSEE on their first attempt.

Complete details of the district-wide survey effort are presented in a final technical report describing evaluation activities, findings, and recommendations (Sipes, Harris, Wise, & Gribben, 2001).

Organization and Contents of Year 2 Evaluation Report

The Year 2 Evaluation Report covers activities performed on the independent evaluation through June 29, 2001. Chapters 2–4 of the report describe activities conducted during Year 2 and present the results of these activities. The final chapter describes the main findings from these results and our recommendations based on them.

[Chapter 2](#) presents analyses of results from the Fall 2000 Field Test data. The results of the Spring 2000 Field Test indicated that nearly all of the items had acceptable statistical properties and could be used on operational CAHSEE forms. Additional test questions, however, were needed to cover particular standards and to support the assembly of multiple test forms. Additional test questions were developed by AIR and included in a second field test conducted in fall 2000.

HumRRO's analyses address the following three general issues:

- What proportion of items has good statistical properties?
- Were there significant differences in the quality and difficulty of the questions included in the second field test compared to the questions in the first field test?
- How difficult are the questions that address specific standards and did the difficulty level vary among different demographic groups?

[Chapter 3](#) examines the results of the March 2001 operational administration of the CAHSEE. These results encompass several aspects of the CAHSEE, including administration issues, analyses of test question statistics, how the passing score was set and analyses of the passing rates, and test score accuracy.

In reviewing [administration issues](#), HumRRO collected information from three sources: observing three schools administer the CAHSEE, monitoring a focus group of district test coordinators, and surveying school test coordinators from schools that participated in the longitudinal sample. The observations focused on students taking the test—attending to the pace of progress, test security, and level of distraction. The focus group was conducted with several district coordinators between the March and May test dates to collect feedback on test logistics. The test coordinator survey was administered to a sample of schools in May 2001 and also addressed logistical issues.

[Analyses of test question statistics](#) are presented separately for multiple-choice and essay items. Multiple-choice item statistics were based on all of the roughly 350,000 students taking each of the two exams in the March 2001 administration. In addition, we selected a random sample of 9,000 students for each exam and used their responses to compute item

response theory (IRT) parameter estimates¹. HumRRO staff observed training of the scorers who scored the essay questions. A summary of the scoring process, training procedure, and scoring agreement are provided in Chapter 3.

Pass rates are a critical characteristic of any testing program, especially for a high-stakes exam such as CAHSEE. The process used to establish the minimum passing scores on the CAHSEE is summarized in Chapter 3. Pass rates for various demographic groups are provided, as well as the variation in pass rates among schools. In addition, mathematics pass rates for students who have completed various levels of math classes are presented.

Test score accuracy is a key question: how accurately students were classified as having achieved or failed to achieve the passing standard. We fit a model based on item response theory to estimate how often students at each score level would be correctly classified. Results, based on the March 2001 administration, are presented in Chapter 3.

Chapter 4 describes results from the second spring survey of teachers and principals participating in the longitudinal study sample. HumRRO continued to organize the evaluation information in five critical areas:

- **Awareness** of and familiarity with the CAHSEE
- **Alignment** of the districts' curricula to state/CAHSEE standards
- **Planning and preparation** for the CAHSEE
- **Expectations** of impact on instruction, passing rates, and consequences of the CAHSEE
- **Potential outcomes** such as drop-out and graduation rates and college attendance

Chapter 5 presents our Findings and Recommendations based on the existing state of data analyses and results.

¹ In our February 2002 report, we will compare item statistics from the test forms used in the March and May administrations. Data from the May administration were not available at the time this report was written.

CHAPTER 2: ANALYSIS OF FALL 2000 FIELD TEST DATA

Introduction

Test questions that had been developed or adapted during the first half of 2000 were included in the Spring 2000 Field Test. American Institutes for Research (AIR) reported results from that field test August of 2000 (American Institutes for Research, 2000). Our own analyses of the Spring 2000 Field Test were reported in our June 30 and August 25 reports (Wise et al., 2000a; Wise et al., 2000b). The results of the Spring 2000 Field Test indicated that nearly all of the items had acceptable statistical properties and could be used in operational CAHSEE forms. Nonetheless, additional test questions were needed to cover particular standards and to support the assembly of multiple test forms. Additional test questions were developed by AIR and included in a second field test conducted in Fall 2000. Analyses of results from this second field test are reported in this chapter.

Our analyses addressed three general issues:

- What proportion of items has good statistical properties?
- Were the questions included in the second field test significantly different in quality and difficulty compared to the questions in the first field test?
- How difficult are the questions that address specific standards and did the difficulty level vary among different demographic groups?

The answer to the first question provides an indication of the continued soundness of the development procedures and also will determine whether there are enough high-quality items to begin assembling multiple operational forms of the exam. The second wave of questions was developed from scratch specifically for the CAHSEE, while the first wave included questions selected from other sources as appropriate measures of the standards to be assessed by the CAHSEE. The newer questions had not been as extensively reviewed and we wanted to know whether this would lead to any differences in apparent quality. In addressing the third issue, we combined questions from both the Spring and Fall 2000 Field Tests.

The field test results provide an interesting contrast to the results from the March 2001 operational administration. Researchers attempted to recruit representative samples of 10th graders for the two field tests; the operational administration included 9th graders who volunteered to take the CAHSEE. With another year of schooling, 10th graders might perform significantly better on some or all parts of the tests. On the other hand, the motivation to work hard was clearly lower in the field test where students' scores would not count and would not be reported.

Field Test Design

Test Booklets

AIR constructed four test booklets (forms) of English-language arts (ELA) questions. Each form contained 120 multiple-choice (MC) questions and two constructed response (CR)

essay questions. The first essay question was included after question 82 and the second essay question was at the end of the test. A total of 43 different reading passages with MC questions (items) were tried out. Some of these passages were included in more than one test booklet with differences in some or all of the questions asked about the passage. The purpose of this repetition was to avoid asking too many different questions of any one student, but still allow the contractor to pick the best items for each passage when it is used in an operational form. In all, 372 new MC questions were tried out in the Fall Field Test, with 28 of these items included in two different forms (bringing the total MC items printed to 400, or 100 per booklet). Three different versions (subforms) of each booklet were created with the same MC questions but different essay questions. In this way a total of 24 different essay questions were tried out (2 for each of the 3 versions of each of the 4 forms).

AIR also constructed 4 forms of mathematics (math) items. Each form contained 100 MC items. There were no essay questions for math and there was no overlap across the 4 math booklets.

In order to compare results from the Fall Field Test to results from the Spring Field Test, the test developers had to adjust for differences in the achievement levels of the students who participated in the two field tests. To assess these differences, 20 ELA and 20 mathematics questions from the Spring Field Test were identified as “linking items.” The 20 ELA questions were included in each of the four ELA forms. Similarly, the 20 mathematics questions were included in each of the math forms. The questions were selected to cover different standards and represent different levels of difficulty. As a result, each form in the Fall Field Test had 100 new MC questions and 20 questions from the Spring Field Test used for linking.

Field Test Sample

Details of the Field Test Sampling plan will be presented in AIR’s report on the field test. The basic goal was to ensure that the sample of students completing each test booklet covered a wide range of abilities and was generally representative of 10th grade students in California. Initially researchers thought that the field test would have to provide normative data for use in determining minimum passing scores. There were several limitations on this plan, including the fact that the field test participants had only just begun the 10th grade curriculum and the likelihood that they may not all have been motivated to do their best. When it was believed that the 2001 administration to 9th graders would be for practice only, researchers planned to collect more comprehensive normative information from a census testing of 10th graders in 2002. When those plans were changed again by the failure of Senate Bill 84 (SB 84, which, in part, introduced urgency legislation that proposed delaying the requirement that students pass the CAHSEE to the class of 2005 rather than the class of 2004), data from the operational March 2001 administration were used in preference to constructing estimated passing rates from the field test results

For each of the two exams, AIR sorted California schools by their level of performance on the corresponding 2000 STAR (Standardized Testing and Reporting; for details see <http://star.cde.ca.gov/>) test and then picked 10 schools from the lowest performing tenth (decile) of these schools, 10 schools from the next lowest performing decile, and so on up to

10 schools from the top performing decile. This approach appears to be an effective way of obtaining samples from schools that span the full range of ELA and math abilities.

For each of the selected schools, AIR requested up to 66 tenth grade students. Some of the schools were too small to be able to comply with this request and others could not supply the total requested students because of end-of-year scheduling problems. Fortunately, AIR had been reasonably conservative in planning for this contingency and the resulting sample sizes appear adequate for most of the intended analyses. Within each school, each of the four different ELA or math booklets was assigned to roughly one-fourth of the students tested. This provided “randomly equivalent” samples of students for the different booklets (the same ability levels except for random factors in the assignment to booklet that become negligible with large sample sizes). The 20 common linking items included in each test form provided a basis for checking on the equivalence of the samples of students for each test form and also a means of equating results from each form back to the scale used in the Spring 2000 Field Test.

Table 2.1 shows the total number of students completing each booklet. In these and the tables that follow, a small number of students with missing form codes or no valid item responses were deleted from our analyses. Even though the tests were long, nearly all students responded to all of the questions. Only 5% of the ELA sample and 3% of the math sample failed to respond to (omitted) more than five of the 120 questions.

Table 2.1 also shows the average percentage of correct scores for the 120 MC questions in each form. (These numbers are also the average of the percentage of correct responses to each question.) For the ELA forms, the average score for the essay items is also shown. For both subjects, these averages and the standard deviations (which show how much the scores varied across different students) were very similar across the four test forms. Assuming that the random assignment of students to booklets worked as intended, this similarity in percent correct scores and the essay scores suggests that the questions in each of the different booklets were of comparable average difficulty.

TABLE 2.1 Average Scores by Subject and Field Test Form

Subject		Field Test Form	Sample Size	Average Score (% Correct for MC)	Standard Deviation
ELA–MC	Fall 2000	1.x	1246	56.4	19.5
		2.x	1299	58.6	20.3
		3.x	1315	56.8	19.4
		4.x	1233	56.6	19.7
		ALL	5093	57.1	19.8
	Spring 2000	ALL	3757	58.9	20.5
ELA–Essays	Fall 2000	1.x	1161	2.08*	0.61
		2.x	1213	2.11*	0.63
		3.x	1247	2.19*	0.64
		4.x	1159	2.05*	0.60
		ALL	4780	2.11*	0.62
	Spring 2000	ALL	3843	2.02	0.96
Mathematics	Fall 2000	1	1212	41.8	16.3
		2	1236	41.9	16.3
		3	1212	44.4	17.1
		4	1199	45.2	16.0
		ALL	4859	43.3	16.5
	Spring 2000	ALL	3920	47.1	18.1

* Note: Essay average reflects score out of four possible points

Item Difficulties

The results in Table 2.1 above provide important information on the average difficulty of the CAHSEE items for California students at the beginning of 10th grade. For reference, Table 2.1 also shows average rates of correct response for questions in the Spring 2000 Field Test. The Spring 2000 Field Test involved students at the very end of the 10th grade. For ELA and particularly for math, the average passing rates were somewhat lower in the Fall Field Test. This could either mean that the questions developed for the Fall Field Test were a bit more difficult or that students at the beginning of 10th grade were not as well prepared to answer the questions as were students at the end of 10th grade. See the analyses of the linking items presented below for more information on these two options.

As noted in our Spring 2000 report, all of the MC questions include four possible alternative answers. It is important to note that, because of the possibility of guessing, the percent of students who answered these questions correctly is not the same as the percent who actually knew the correct answer. For example, suppose only 25% of the students knew the correct answer to a question and the other 75% guessed randomly. All of the students knowing the answer (25%) would answer correctly and one fourth of the students who did not know the answer (18.75%) would answer correctly through random guessing, so the expected percent answering correctly would be 43.75% (25 + 18.75). Note that 43.75% is slightly **higher** than the average passing rate for the math questions (43.3%), suggesting that, on average, fewer than 25% of the students actually knew the correct answer.

We also examined the distribution of number correct scores for different demographic groups as shown in Tables 2.2 and 2.3. These results provide a preliminary indication of the relative difficulty of CAHSEE items for different groups of students. In the next chapter, we

present estimates of actual passing rates for these groups from the March 2001 administration of the tests.

TABLE 2.2 Average Total Scores by Gender

Subject	Gender	Fall 2000 N	Average Score (% Correct for MC)	
			Fall 2000	Spring 2000
ELA–MC	Female	2535	59.5	62.9
	Male	2522	54.5	55.2
ELA–Essay	Female	2423	2.16*	2.21
	Male	2324	1.99*	1.85
Mathematics	Female	2371	43.0	46.8
	Male	2460	43.7	47.4

* Note: Essay average reflects score out of four possible points

TABLE 2.3 Average Total Scores by Race and Language Fluency

Subject	Race/Language Status	Fall 2000 N	Average Score (% Correct for MC)	
			Fall 2000	Spring 2000
ELA–MC	African American (1)	256	51.3	50.2
	Asian (3)	490	64.2	68.8
	Hispanic (5)	1978	50.6	50.9
	White (7)	1846	64.2	65.7
	English Learners	726	42.2	40.5
ELA–Essay	African American (1)	234	1.86*	1.70
	Asian (3)	476	2.37*	2.36
	Hispanic (5)	1822	1.94*	1.80
	White (7)	1764	2.27*	2.21
	L.E.P**	638	1.78	1.45
Mathematics	African American (1)	320	35.5	41.0
	Asian (3)	345	56.4	57.6
	Hispanic (5)	1970	37.0	38.6
	White (7)	1671	49.6	52.0
	English Learners	318	35.6	14.8

* Note: Essay average reflects score out of four possible points

Table 2.4 shows the average percent of correct responses to the 20 linking items for each of the Fall Field Test Forms and for all of the students in the Spring Field Test. For ELA, the students at the beginning of 10th grade in the Fall Field Test actually did better than the students from the Spring Field Test who were at the end of the 10th grade. This suggests that the ELA questions in the Fall Field Test were, in fact, slightly easier.

The data in Table 2.4 show the opposite finding for mathematics. The sample of students at the beginning of 10th grade had lower rates of correct responses than the sample of students at the end of 10th grade by about 4.5 percentage points. The difference was about the same as the difference in passing rates for the new items, suggesting that all of the variances in percent correct were due to sample differences and that there was no difference in the average difficulty of the questions.

TABLE 2.4 Comparison of Spring and Fall Performance on Linking Items

No. of Linking Items	ELA	Mathematics
	20	20
Passing Rates in Fall 2000 Field Test	Percent Correct	Percent Correct
Form 1	63.5	52.3
Form 2	62.7	52.4
Form 3	62.4	53.3
Form 4	62.5	53.8
Fall 2000 Avg. (beginning of 10 th Grade)	62.8	53.0
Spring 2000 Avg. (end of 10 th Grade)	61.7	57.5
Difference	-1.1	+4.5

Item Screening

As with the Spring Field Test, we made an effort to estimate the number of field test items with statistical properties that suggest they would need to be dropped or revised (and retested) before being used in operational forms. Statistical indicators were used to assess: (a) whether items were *inappropriately* easy or difficult, (b) whether the item score provided information that was at odds with (did not generalize to) the information provided by the other items, and (c) whether the item appeared to function differently for different demographic groups (females, Hispanics, or African Americans).

Item Difficulty

We computed the percent passing (p-values) for each item. In subsequent analyses, it might be possible and desirable to adjust these p-values for differences between the field test samples and the total population of California's 10th grade students. As noted above, the procedures used in drawing the sample should have been sufficient to ensure that any such adjustments would be minor. Item difficulty screens are used to weed out items, which, although they could be perfectly valid, provide little or no useful information. More often than not, extreme item difficulties also reflect item flaws so that most of the items screened out are not valid measures of the intended standards and are inefficient as well. For example, if nearly all students pass an item, it may well be that the distracters (incorrect response options) are not plausible or that something in the item text "gives away" the correct answer. Similarly, if the percentage answering correctly is at the guessing level (suggesting that no one really knows the correct answer), the item provides little information about student skills and is likely to be flawed. In this case, the item could be incorrectly keyed or have no correct option or have some problem in the text that leads even able students astray. We flagged items with passing rates above 95% as too easy and those with passing rates below 25% (the guessing level for 4-option items) as too difficult.

Item-Total Correlation

Another indicator of potential item problems is when results from the item disagree with (fail to generalize to) the scores on other items. The item-total correlation coefficient measures the extent to which students who answer the item correctly also score well on the rest of the test. Because the item score is dichotomous (scored pass or fail) and the total score has a continuous (more normal) distribution, the range of the item-total correlations is

limited, particularly when the percentage of students passing the item is much different from 50. We computed a Clemans-Brogden biserial correlation coefficient (Lord & Novick, 1968, page 341) that corrects for differences in item difficulty. Possible values range from -1.0 to $+1.0$ with positive values indicating agreement between the item score and the total score. We flagged all items with values less than 0.2 as having a generalizability problem. Often these items are mis-keyed or have ambiguities in the text or options that limit their validity as a measure of achievement of the targeted standards.

Differential Item Functioning (DIF)

It is common practice to look for differences in the way an item functions across different groups of students. In most analyses of differential item functioning (DIF), a focal group is identified that is of specific concern. The rates at which members of this group answer an item correctly (pass) are compared to passing rates for a second reference group. In our analyses, Hispanics, African Americans, and females were the focal groups of interest. In each case, statistics for these students were compared to statistics for all other students in the field test.

The issue is not just whether there are different passing rates for these different groups. The question addressed in DIF analyses is whether group differences in passing rates for some items are significantly larger than the differences in passing rates for the other items. Another way of framing this issue is to ask whether students from different groups who are at the same overall level of achievement (usually indicated by the total test score) have the same probability of answering the item correctly.

We computed DIF statistics² for females, Hispanics and African Americans—the groups of most common concern in test bias studies. The sample sizes for females and Hispanics (more than 400 and 300 per test form respectively) were large enough to detect moderate and large DIF reliably. The sample size for African Americans was much smaller, generally 40 to 50 per item. Only a few items were flagged as having potentially significant DIF for this group, in part because the sample size was not large enough to allow detection of items with only moderate DIF.

Note that a finding of significant DIF does not necessarily mean that an item is not a valid measure of the intended standard. Group differences in preparation can lead to greater group differences on some items than on others. For example, suppose that male and female students took algebra at the same rate, but many more male students went on to take geometry by the 10th grade. We would expect larger gender differences in passing rates for

² A commonly used DIF statistic, the Mantel-Haenszel log odds ratio (Mantel & Haenszel, 1959), compares the odds of passing the item (percent correct/percent incorrect) for focal and reference group members at each different total score level. An odds ratio is computed for each total score level (indicating comparable overall ability). If the odds of passing for the focal group are the same as for the reference group, the ratio of the odds values is 1.0 and the logarithm of this ratio is 0.0. To the extent that the log odds values (across all of the score levels) are different from 0.0, the item is said to function differently (be disproportionately hard or easy) for the focal and reference groups. We computed a chi-square statistic (see Dorans & Holland, 1993, page 40) that tests whether the Mantel-Haenszel statistic is different from 0.0. We flagged cases where the statistic was greater than 7.8794. This corresponds to the .005 level for a one-degree chi-square, meaning that there was less than .01 chance of getting a value this large (or a correspondingly small one) by chance alone.

geometry items than for algebra items, even if all items were perfectly valid measures of their intended content. A common practice is to flag all items with significant DIF values for further content and sensitivity review. Many of these items would then be accepted and used without further changes. We used a relatively high cutoff (the .01 level of statistical significance) to estimate the proportion of items that would eventually be screened out because of DIF concerns.

Item Screening Results

Table 2.5 summarizes our item screening results. It should be noted that these are preliminary estimates based on statistical criteria only. AIR will end up with somewhat different results using somewhat different statistical criteria and incorporating editorial, as well as statistical, review of flagged items.

Overall the results show the items developed for the Fall 2000 Field Test were of good quality with relatively few questions flagged for statistical concerns. In many programs, half of the items or more are screened out on the basis of initial field test results. We flagged only 1 out of 4 of the math items and 1 out of 8 of the ELA items. The high survival rates for the questions in the Fall Field Test were only slightly lower than for the Spring Field Test, even though most of the items in the Spring Field Test had been previously screened. The high survival rates indicate a high level of effectiveness in the item development and review procedures.

TABLE 2.5 Percent of Multiple-Choice (MC) Items Screened Out by Various Statistical Criteria

Subject/Statistic	ELA-MC	Math
Total new field test items Fall 2000	352	400
Number passing all screens Fall 2000	297	288
Percent passing all screens Fall 2000	84.4%	72.0%
% Too easy*	0.0%	0.0%
% Too hard	1.7%	11.8%
% Low item-total correlation	3.1%	13.0%
% DIF–Female	7.4%	7.0%
% DIF–Hispanic	6.0%	0.8%
% DIF–African American	0.3%	0.3%
Percent passing all screens Spring 2000	87.0%	77.5%

* Note: Percents add to more than 100 because some items were flagged for more than one reason

Relative Difficulty of Questions by Content Standard

In our August 2000 report, we looked at the relative difficulty of the questions developed to assess each content standard. With the completion of the Fall Field Test, there are now twice as many questions for each content standard, providing a more extensive basis for comparing the relative difficulty of the different standards. Tables 2.6 through 2.8 show the number of items developed for each content standard and the average percent passing for these items. The number of questions to be included in each test form is also shown, providing a basis for determining the number of different test forms that might be assembled from the items “surviving” the Spring and Fall Field Tests. Tables 2.6, 2.7 and 2.8 reference California Content Standards in the following format:

<p align="center">1.2 Distinguish between the denotative and connotative meanings of words and interpret the connotative power of words.</p>
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These standards, including the standard number (1.2 in the example), can be found in the *CAHSEE Language Arts Blueprint* (see http://www.cde.ca.gov/cdepress/lang_arts.pdf) and the *CAHSEE Mathematics Blueprint* (see <http://www.cde.ca.gov/cdepress/math.pdf>), both of which were approved by the State Board of Education on December 7, 2000. These standards comprise a subset of the complete set of CDE standards. Missing standards (as evidenced by gaps in the sequence) are not included in the CAHSEE exam and have been omitted here deliberately. Some standards (e.g., Table 2.8 Standard 24.3) were included in the field test but subsequently eliminated from CAHSEE; their statistics were included in the tables although the “number per form” is zero.

TABLE 2.6 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Language Arts—Reading

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
1.0 Word Analysis, Fluency, and Systematic Vocabulary Development (Grades 9-10)			
<i>Vocabulary and Concept Development</i>			
1.1 Identify and use the literal and figurative meanings of words and understand word derivations.	6	64	62%
1.2 Distinguish between the denotative and connotative meanings of words and interpret the connotative power of words.	4	8	63%
2.0 Reading Comprehension (Focus on Informational Materials) (Grade 9-10 except as noted)			
<i>Structural Features of Informational Materials</i>			
8.2.1 Compare and contrast the features and elements of consumer materials to gain meaning from documents (e.g., warranties, contracts, product information, instructional manuals). [NOTE: This is a grade eight standard.]	1	8	66%
2.1 Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.	3	22	73%
2.2 Prepare a bibliography of reference materials for a report using a variety of consumer, workplace, and public documents.	2	5	49%
<i>Comprehension and Analysis of Grade-Level-Appropriate Text</i>			
2.3 Generate relevant questions about readings on issues that can be researched.	2	12	50%
2.4 Synthesize the content from several sources or works by a single author dealing with a single issue; paraphrase the ideas and connect them to other sources and related topics to demonstrate	3	77	63%

TABLE 2.6 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Language Arts—Reading

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
comprehension.			
2.5 Extend ideas presented in primary or secondary sources through original analysis, evaluation, and elaboration.	3	47	59%
2.7 Critique the logic of functional documents by examining the sequence of information and procedures in anticipation of possible reader misunderstandings.	3	14	63%
2.8 Evaluate the credibility of an author's argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).	7	33	56%
3.0 Literary Response and Analysis (Grades 9-10):			
<i>Structural Features of Literature</i>			
3.1 Articulate the relationship between the expressed purposes and the characteristics of different forms of dramatic literature (e.g., comedy, tragedy, drama, dramatic monologue).	2	8	65%
<i>Narrative Analysis of Grade-Level-Appropriate Text</i>			
3.3 Analyze interactions between main and subordinate characters in a literary text (e.g., internal and external conflicts, motivations, relationships, influences) and explain the way those interactions affect the plot.	2	16	66%
3.4 Determine characters' traits by what the characters say about themselves in narration, dialogue, dramatic monologue, and soliloquy.	2	25	61%
3.5 Compare works that express a universal theme and provide evidence to support the ideas expressed in each work.	4	13	61%
3.6 Analyze and trace an author's development of time and sequence, including the use of complex literary devices (e.g., foreshadowing, flashbacks).	2	7	53%
3.7 Recognize and understand the significance of various literary devices, including figurative language, imagery, allegory, and symbolism, and explain their appeal.	2	13	51%
3.8 Interpret and evaluate the impact of ambiguities, subtleties, contradictions, ironies, and incongruities in a text.	2	10	59%
3.9 Explain how voice, persona, and the choice of a narrator affect characterization and the tone, plot, and credibility of a text.	2	6	50%
3.10 Identify and describe the function of dialogue, scene designs, soliloquies, asides, and character foils in dramatic literature.	2	9	52%

TABLE 2.6 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Language Arts—Reading

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
<i>Literary Criticism</i>			
8.3.7 Analyze a work of literature, showing how it reflects the heritage, traditions, attitudes, and beliefs of its author. (Biographical approach) [NOTE: This is a grade eight standard.]	1.3*	4	71%
3.11 Evaluate the aesthetic qualities of style, including the impact of diction and figurative language on tone, mood, and theme, using the terminology of literary criticism. (Aesthetic approach)	1.3*	3	71%
3.12 Analyze the way in which a work of literature is related to the themes and issues of its historical period. (Historical approach)	1.3*	1	54%

- Note: 4 questions rotated across approaches in different test forms

TABLE 2.7 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Language Arts—Writing

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
1.0 Writing Strategies (Grades 9-10):			
<i>Organization and Focus</i>			
1.1 Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.	2	23	54%
1.2 Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.	3	17	54%
<i>Research and Technology</i>			
1.3 Use clear research questions and suitable research methods (e.g., library, electronic media, personal interview) to elicit and present evidence from primary and secondary sources.	1	9	62%
1.4 Develop the main ideas within the body of the composition through supporting evidence (e.g., scenarios, commonly held beliefs, hypotheses, definitions).	1	11	53%
1.5 Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents).	1	2	55%
1.6 Integrate quotations and citations into a written text while maintaining the flow of ideas.	1	5	54%
1.9 Revise writing to improve the logic and coherence of the organization and controlling perspective, the precision of word choice, and the tone by taking into consideration the audience, purpose, and formality of the context.	2	4	52%

TABLE 2.7 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Language Arts—Writing

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Avg. Score (range 0-4)
2.0 Writing Applications (Genres and Their Characteristics)			
2.1 Write biographical narratives: <ol style="list-style-type: none"> Relate a sequence of events and communicate the significance of the events to the audience. Locate scenes and incidents in specific places. Describe with concrete sensory details the sights, sounds, and smells of a scene and the specific actions, movements, gestures, and feelings of the characters; use interior monologue to depict the characters' feelings. Make effective use of descriptions of appearance, images, shifting perspectives, and sensory details. 	.33** essay	5	2.05
2.2. Write responses to literature: <ol style="list-style-type: none"> Demonstrate a comprehensive grasp of the significant ideas of literary works. Support important ideas and viewpoints through accurate and detailed references to the text or to other works. Demonstrate awareness of the author's use of stylistic devices and an appreciation of the effects created. Identify and assess the impact of perceived ambiguities, nuances and complexities within the text. 	0.5*** essay	12	2.11
2.3 Write expository compositions, including analytical essays and research reports: <ol style="list-style-type: none"> Marshal evidence in support of a thesis and related claims, including information on all relevant perspectives. Convey information and ideas from primary and secondary sources accurately and coherently. Make distinctions between the relative value and significance of specific data, facts, and ideas. Anticipate and address readers' potential misunderstandings, biases, and expectations. Use technical terms and notations accurately. 	0.5*** essay	7	2.07
2.4 Write persuasive compositions: <ol style="list-style-type: none"> Structure ideas and arguments in a sustained and logical fashion. Use specific rhetorical devices to support assertions (e.g., appeal to logic through reasoning; appeal to emotion or ethical belief; relate a personal anecdote, case study, or analogy). Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, and expressions of commonly accepted beliefs and logical reasoning. Address readers' concerns, counterclaims, biases, and expectations. 	0.33** essay	12	1.98

TABLE 2.7 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Language Arts—Writing

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Avg. Score (range 0-4)
2.5 Write business letters: a. Provide clear and purposeful information and address the intended audience appropriately. b. Use appropriate vocabulary, tone, and style to take into account the nature of the relationship with, and the knowledge and interests of, the recipients. c. Highlight central ideas or images. d. Follow a conventional style with page formats, fonts, and spacing that contribute to the document's readability and impact.	0.33** essay	12	2.05
STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
1.0 Written and Oral English Language Conventions (Grades 9 & 10):			
<i>Grammar and Mechanics of Writing</i>			
1.1 Identify and correctly use clauses (e.g., main and subordinate), phrases (e.g., gerund, infinitive, and participial), and mechanics of punctuation (e.g., semicolons, colons, ellipses, hyphens).	4	27	54%
1.2 Understand sentence construction (e.g., parallel structure, subordination, proper placement of modifiers) and proper English usage (e.g., consistency of verb tenses).	4	34	58%
1.3 Demonstrate an understanding of proper English usage and control of grammar, paragraph and sentence structure, diction, and syntax.	4	52	60%
<i>Manuscript Form</i>			
1.5 Reflect appropriate manuscript requirements, including title page presentation, pagination, spacing and margins, and integration of source and support material (e.g., in-text citation, use of direct quotations, paraphrasing) with appropriate citations.	1	9	48%

- ** Note: 3 questions rotated across different test forms
- ***Note: 2 questions rotated across different test forms

TABLE 2.8 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Mathematics

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
Grade 6—Statistics, Data Analysis, and Probability			
1.0 Students compute and analyze statistical measurements for data sets:			
1.1 Compute the mean, median, and mode of data sets.	1	15	50%

TABLE 2.8 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Mathematics

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
2.0 Students use data samples of a population and describe the characteristics and limitations of the samples:			
2.5 Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims.	1	6	52%
3.0 Students determine theoretical and experimental probabilities and use these to make predictions about events:			
3.1 Represent all possible outcomes for compound events in an organized way (e.g., tables, grids, tree diagrams) and express the theoretical probability of each outcome.	1	7	44%
3.3 Represent probabilities as ratios, proportions, decimals between 0 and 1, and percentages between 0 and 100, and verify that the probabilities computed are reasonable; know that if P is the probability of an event, 1-P is the probability of an event not occurring.	2	15	54%
3.5 Understand the difference between independent and dependent events.	1	7	41%
Grade 7—Number Sense			
1.0 Students know the properties of, and compute with, rational numbers expressed in a variety of forms:			
1.1 Read, write, and compare rational numbers in scientific notation (positive and negative powers of 10) with approximate numbers using scientific notation.	1	5	54%
1.2 Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.	3	19	61%
1.3 Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.	2	7	50%
1.6 Calculate the percentage of increases and decreases of a quantity.	1	3	43%
1.7 Solve problems that involve discounts, markups, commissions, and profit, and compute simple and compound interest.	2	9	51%
2.0 Students use exponents, powers, and roots, and use exponents in working with fractions:			
2.1 Understand negative whole-number exponents. Multiply and divide expressions involving exponents with a common base.	1	4	33%
2.2 Add and subtract fractions by using factoring to find common denominators.	1	7	39%
2.3 Multiply, divide, and simplify rational numbers by using exponent rules.	1	8	58%

TABLE 2.8 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Mathematics

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
2.4 Use the inverse relationship between raising to a power and extracting the root of a perfect square integer; for an integer that is not square, determine without a calculator the two integers between which its square root lies and explain why.	1	10	49%
2.5 Understand the meaning of the absolute of a number; interpret the absolute value as the distance of the number from zero on a number line; and determine the absolute value of real numbers.	1	7	64%
Grade 7—Algebra and Functions			
1.0 Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities, and graphs:			
1.1 Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represents a verbal description (e.g., three less than a number, half as large as area A).	2	9	55%
1.2 Use the correct order of operations to evaluate [simplify] algebraic expressions such as $3(2x+5)^2$.	1	5	55%
1.5 Represent quantitative relationships graphically and interpret the meaning of a specific part of a graph in the situation represented by the graph.	3	14	59%
2.0 Students interpret and evaluate expressions involving integer powers and simple roots:			
2.1 Interpret positive whole-number powers as repeated multiplication and negative whole-number powers as repeated division or multiplication by the multiplicative inverse. Simplify and evaluate expressions that include exponents.	1	5	53%
2.2 Multiply and divide monomials; extend the process of taking powers and extracting roots to monomials when the latter results in a monomial with an integer exponent.	1	4	44%
3.0 Students graph and interpret linear and some nonlinear functions:			
3.1 Graph functions of the form $y=nx^2$ and $y=nx^3$ and use in solving problems.	1	6	38%
3.3 Graph linear functions, noting that the vertical change (change in y-value) per unit of horizontal change (change in x-value) is always the same and know that the ratio ("rise over run") is called the slope of a graph.	2	13	45%
3.4 Plot the values of quantities whose ratios are always the same (e.g., cost to the number of an item, feet to inches, circumference to diameter of a circle). Fit a line to the plot and understand that the slope of a line equals the [ratio of the] quantities.	1	6	55%

TABLE 2.8 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Mathematics

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
4.0 Students solve simple linear equations and inequalities over the rational numbers:			
4.1 Solve two-step linear equations and inequalities in one variable over the rational numbers, interpret the solution or solutions in the context from which they arose, and verify the reasonableness of the results.	3	20	59%
4.2 Solve multistep problems involving rate, average speed, distance, and time, or a direct variation.	2	11	56%
Grade 7—Measurement and Geometry			
1.0 Students choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems:			
1.1 Compare weights, capacities, geometric measures, times, and temperatures within and between measurement systems (e.g., miles per hour and feet per second, cubic inches to cubic centimeters).	2	18	50%
1.2 Construct and read drawings and models made to scale.	1	8	41%
1.3 Use measures expressed as rates (e.g., speed, density) and measures expressed as products (e.g., person-days) to solve problems; check the units of the solutions; and use dimensional analysis to check the reasonableness of the answer.	2	12	61%
2.0 Students compute the perimeter, area, and volume of common geometric objects and use the results to find measures of less common objects. They know how perimeter, area and volume are affected by changes of scale:			
2.1 Use formulas routinely for finding the perimeter and area of basic two-dimensional figures and the surface area and volume of basic three-dimensional figures, including rectangles, parallelograms, trapezoids, squares, triangles, circles, prisms, and cylinders.	3	22	43%
2.2 Estimate and compute the [surface] area of more complex or irregular two- and three-dimensional figures by breaking the figures down into more basic geometric objects.	2	13	44%
2.3 Compute the length of the perimeter, the surface area of the faces, and the volume of a three-dimensional object built from rectangular solids. Understand that when the lengths of all dimensions are multiplied by a scale factor, the surface area is multiplied by the square of the scale factor and the volume is multiplied by the cube of the scale factor.	1	7	44%
2.4 Relate the changes in measurement with a change of scale to the units used (e.g., square inches, cubic feet) and to conversions between units (1 square foot = 144 square inches or $[1 \text{ ft}^2] = \{144 \text{ in}^2\}$, 1 cubic inch is approximately 16.38 cubic centimeters or $[1 \text{ in}^3] = [16.38 \text{ cm}^3]$).	1	5	51%

TABLE 2.8 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Mathematics

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
3.0 Students know the Pythagorean theorem and deepen their understanding of plane and solid geometric shapes by constructing figures that meet given conditions and by identifying attributes of figures:			
3.2 Understand and use coordinate graphs to plot simple figures, determine lengths and areas related to them, and determine their images under translations and reflections.	2	13	44%
3.3 Know and understand the Pythagorean theorem and its converse and use it to find the length of the missing side of a right triangle and the lengths of other line segments and, in some situations, empirically verify the Pythagorean theorem by direct measurement.	2	15	37%
3.4 Demonstrate an understanding of conditions that indicate two geometrical figures are congruent and what congruence means about relationships between the sides and angles of the two figures.	1	5	52%
Grade 7—Statistics, Data Analysis, and Probability			
1.0 Students collect, organize, and represent data sets that have one or more variables and identify relationships among variables within a data set by hand and through the use of an electronic spreadsheet software program:			
1.1 Know various forms of display for data sets, including a stem-and-leaf plot or box-and-whisker plot; use the forms to display a single set of data or to compare two sets of data.	2	14	58%
1.2 Represent two numerical variables on a scatter plot and informally describe how the data points are distributed and any apparent relationship that exists between the two variables (e.g., between time spent on homework and grade level).	2	17	58%
1.3 Understand the meaning of, and be able to compute the minimum, the lower quartile, the median, the upper quartile, and the maximum of a data set.	2	19	49%
Grade 7—Mathematical Reasoning			
1.0 Students make decisions about how to approach problems:			
1.1 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.	2	14	58%
1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.	1	6	40%
2.0 Students use strategies, skills, and concepts in finding solutions:			
2.1 Use estimation to verify the reasonableness of calculated results.	1	6	58%

TABLE 2.8 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Mathematics

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
2.3 Estimate unknown quantities graphically and solve for them by using logical reasoning and arithmetic and algebraic techniques.	1	3	49%
2.4 Make and test conjectures by using both inductive and deductive reasoning.	1	14	49%
3.0 Students determine a solution is complete and move beyond a particular problems by generalizing to other situations:			
3.1 Evaluate the reasonableness of the solution in the context of the original.	1	8	55%
3.3 Develop generalizations of the results obtained and the strategies used and apply them to new problem situations.	1	7	55%
Algebra 1			
2.0 Students understand and use such operations as taking the opposite, finding the reciprocal, and taking a root. They understand and use the rules of exponents.	1	13	44%
3.0 Students solve equations and inequalities involving absolute values.	1	6	34%
4.0 Students simplify expressions before solving linear equations and inequalities in one variable, such as $3(2x-5) + 4(x-2) = 12$.	2	10	44%
5.0 Students solve multistep problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.	1	22	42%
6.0 Students graph a linear equation and compute the x- and y-intercepts (e.g., graph $2x + 6y = 4$).	2	15	36%
7.0 Students verify that a point lies on a line, given an equation of the line. Students are able to derive linear equations.	1	16	36%
8.0 Students understand the concepts of parallel lines and how those slopes are related.	1	10	38%
9.0 Students solve a system of two linear equations in two variables algebraically and are able to interpret the answer graphically. Students are able to solve a system of two linear inequalities in two variables and to sketch the solution sets.	1	6	43%
10.0 Students add, subtract, multiply, and divide monomials and polynomials. Students solve multi-step problems, including word problems, by using these techniques.	1	5	36%
15.0 Students apply algebraic techniques to solve rate problems, work problems and percent-mixture problems.	1	8	38%
16.0 Students understand the concepts of a relation and a function, determine whether a given relation defines a function, and give pertinent information about given relations and functions.	0	2	28%

TABLE 2.8 Number and Difficulty of CAHSEE Questions by Test Content Standard:
Mathematics

STRANDS/STANDARDS [BOLDED STANDARDS INDICATE PASS RATES of 50% OR LOWER]	No. per Form	No. in Bank	Average % Pass
17.0 Students determine the domain of independent variables and the range of dependent variables defined by a graph, a set of ordered pairs, or a symbolic expression [an equation].	0	3	36%
18.0 Students determine whether a relation defined by a graph, a set of ordered pairs, or a symbolic expression [an equation] is a function and justify the conclusion.	0	2	33%
21.0 Students graph quadratic functions and know that their roots are the x-intercepts.	0	2	38%
23.0 Students apply quadratic equations to physical problems, such as the motion of an object under the force of gravity.	0	7	36%
24.0 Students use and know simple aspects of a logical argument:			
24.2 Students identify the hypothesis and conclusion in logical deduction.	0	3	40%
24.3 Students use counterexamples to show that an assertion is false and recognize that a single counterexample is sufficient to refute an assertion.	0	2	27%
25.0 Students use properties of the number system to judge the validity of results, to justify each step of a procedure, and to prove or disprove statements:	0	14	37%
25.1 Students use properties of numbers to construct simple, valid arguments (direct and indirect) for, or formulate counterexamples to, claimed assertions.			
25.2 Students judge the validity of an argument according to whether the properties of the real number system and the order of operations have been applied correctly at each step.			
25.3 Given a specific algebraic statement involving linear, quadratic, or absolute value expressions or equations or inequalities, students determine whether the statement is true sometimes, always, or never.			

Summary

Overall, the results from the CAHSEE field test were quite positive. Notwithstanding the fact that the test was quite long, nearly all the students answered all of the items. The sample sizes, while smaller than hoped for, were adequate to provide stable estimates of both traditional and IRT item parameters. One limitation was the relatively modest number of African Americans, students with disabilities, and English learner (EL) students who were tested, making it difficult to determine whether the items functioned differently for these groups.

Relatively few items had obvious statistical problems. These results were similar to the results from the Spring Field Test and confirmed results of direct observation that the process of item development and review was thorough and effective.

Comparison between percent correct statistics for the Spring and Fall Field Tests suggests that, for mathematics at least, students are increasing their level of achievement during the 10th grade. The lack of difference for ELA is puzzling. Of course, neither sample was necessarily representative of 10th graders as a whole. Much more definitive information should be available from the test results in 2002, when students who did not pass the exams as 9th graders are retested during the 10th grade.

One concern raised by the field test results was the relative difficulty of the items, particularly in mathematics. If these items reflect what we believe students need to know and be able to do, and several panels of reviewers believe that they do, then a significant number of 10th grade students are likely to fail this exam. Comparative pass rates of correct responses shown above indicate that groups who traditionally score lower on assessments of student achievement will fail at higher rates. It will be important, therefore, to ensure that there are effective programs to help students at risk, both before and after their initial experience with this exam. It is possible that students will perform at higher levels during operational testing than they did on this field test where the results do not count. However, the very high completion rates suggest that nearly all students took the field test seriously.

CHAPTER 3: RESULTS OF THE MARCH 2001 ADMINISTRATION

Introduction

The legislation establishing CAHSEE called for the first operational form(s) of the exam to be administered in Spring 2001 to 9th graders in the Class of 2004. At the first administration, 9th graders could volunteer, but were not required, to take both portions of the exam. Students who did not pass the exam in that administration would be required to take the exam as 10th graders in Spring 2002.

In Fall 2000, the Superintendent set testing dates of March 7, 2001 for the English-language arts (ELA) portion of the CAHSEE and March 13 for the Math portion. Additional testing dates were set in May (May 17 for ELA and May 24 for Math) for year-round schools that were not in session during the March testing dates. Since participation was to be voluntary, no provision was made for makeup sessions for students who were absent on the designated testing dates.

At the December meeting of the State Board of Education (SBE), the Secretary of Education announced that urgency legislation was being introduced in the state legislature that would change the nature of the first administration. Specifically, the March 2001 administration would be changed to a practice test, introducing 9th graders in the Class of 2004 to the nature and format of the examination, but not classifying any students as either passing or failing the exam. The first operational administration would be in Spring 2002, when all 10th graders in the Class of 2004 would be required to participate. The change was motivated by two concerns. First, it appeared that many students do not complete courses that cover the content of the exam until the 10th grade. Making the test operational for 9th graders could raise significant questions about inequity in opportunity to learn the material covered by the test.

The second reason for the change was that census testing of 10th graders in 2002 would provide important normative information. Under the original plan, no single administration would include a representative sample of students. The Spring 2001 administration would be voluntary and the Spring 2002 administration would partially or completely exclude students who had previously passed one or both parts of the exam. Before operational results could be reported, the Board had to determine the minimum score levels required for passing each of the two parts. Minimum passing scores based on performance results on previous administrations of a test are often referred to as “performance standards,” in contrast to content standards, which describe the material covered by the test. In setting performance standards, it is common for the governing body to use normative information (specifically the proportion who pass the exam) to check on the reasonableness of performance standards recommended by panels of content experts.

Following the December 2000 Board meeting, Senate Bill 84 (SB 84) was introduced to enact changes with respect to the initial administration of the CAHSEE. SB 84 was introduced in the state Senate on January 11, 2001 as an urgency measure, meaning that it would take effect immediately. Otherwise the bill would not become effective until well after the planned March administration of the test. The Senate Education Committee approved the

bill with amendments on February 1, 2001 and by the full Senate on February 20, 2001. In the Assembly, the bill was amended to return it to its original form, deleting the Senate amendments that included a provision to defer the requirement until the Class of 2005. On March 1, 2001, the Assembly passed the bill in its original form. Assembly amendments restored the urgency provision, which had been deleted in the Senate. As an urgency measure, the bill required approval by 60% of the members of each house. When the Senate voted on the revised (original) measure on March 1, 2001, it failed to receive the required 60% majority. A second vote was taken on March 5, 2001, but the bill again failed to obtain the required majority. Note that the final vote to defeat SB-84 occurred just 2 days before the administration of the ELA portion of the exam, scheduled for March 7. Fortunately, most 9th graders were already signed up to take the exam, but it is likely that many would have received more extensive preparation had it been known earlier that the exam would count. In reality, however, students in the Class of 2004 were not negatively impacted by the failure of the legislation. They now had one more chance to pass the exam, which they would not have had if it had gone through.

In the remainder of this chapter, we describe the initial administration of the CAHSEE in Spring 2001 and discuss our analysis to date of results from this administration. Since data from the May administration are not yet available and final decisions about scoring and reporting rules are just being made, our analysis as of the end of Year 2 of the evaluation is necessarily preliminary. During Year 3, we will complete analysis of the results and submit a report to the Superintendent, State Board, Governor, and legislature by February 1, 2002 as required under EC60855.

Administering CAHSEE

The plan for administration of a practice test in Spring 2001 would also have allowed an opportunity for a dry run of test administration procedures. As described below, the joint demands of fairness and test security placed a number of difficult constraints on the administration of the CAHSEE. These constraints impacted schools and districts differently, depending on the number of students to be tested, how student time is normally scheduled, the availability of testing space, and other factors. In this section, we describe our observations of the Spring 2001 administration and offer some suggestions for consideration in future administrations of the CAHSEE.

Sources of Information

HumRRO collected information on test administration of CAHSEE from three sources:

- Observing three schools as they administered CAHSEE
- Monitoring training workshops for school and district personnel responsible for test coordination before the March administration and a focus group of district test coordinators after the March administration
- Surveying a modest sample of school test coordinators

Characteristics of the test sessions observed are shown in Table 3.1. The HumRRO observer watched students take the test—attending to the pace of progress, test security, and level of distraction—and interviewed the test coordinators. While the schools varied in the ways they conducted CAHSEE, school staffs were well-prepared and provided good test conditions. The most striking overall feature was how seriously the students took the test.

TABLE 3.1 Characteristics of Schools Observed

School	Subject	School Type	Approximate Number Tested	Environment	Accommodations
A	ELA (March)	Urban	850	Classrooms	None
B	Math (March)	Rural	275	Auditorium	None
C	ELA (May)	Suburban	575	Classrooms	Special Education (Separation)

Our Spring 2001 survey of teachers and principals in the longitudinal sample of schools we are following included a brief survey of site coordinators. The site-coordinator survey (see Appendix C) asked for feedback on guidance received, students tested, the general approach to conducting the test, and changes planned for future administrations of CAHSEE. Coordinators for 42 schools returned the survey. About half had the title of test coordinator and another third were assistant principals.

CDE conducted a focus group with about 40 district testing coordinators between the March and May test dates to collect feedback on test logistics. The coordinators rotated through four stations to discuss issues with administering CAHSEE: (a) testing manuals, workshops, and staff development; (b) logistics, scheduling, and security; (c) test administration support; and (d) accommodations and regulations. The discussion of results from all three sources is organized by those topics.

Observations on Test Administration

Testing Manuals, Workshops, and Staff Development

The test developer and its subcontractor for processing and reporting (NCS Pearson) conducted five workshops with district and school test coordinators (HumRRO observed one of the workshops). The theme of the workshops was that CAHSEE was important and the coordinators needed to get immersed quickly and take seriously the administration of the tests. Topics included session length, test security, and score reports. Speakers walked coordinators through the “aggressive” requirements to receive materials, prepare answer documents, and return materials.

About 60% of the surveyed coordinators had read at least one of the coordinator manuals, but only half reported reading Directions for Administration. Most thought that the information in the manuals was clear, but several suggested changes, including: (a) Combine the coordinator manuals to eliminate overlap, (b) reduce restrictions on distribution of directions for administration, and (c) clarify the instructions for filling out the answer documents.

About 25% of the school site coordinators in the survey had attended the workshop. Although they generally felt frustrated by the uncertainties of whether the test would count,

the only negative comment about the content of the workshop was that not enough of it was about logistics, especially what to do with students who were not being tested. One response to a question about plans for the next administration was, “Going to the conference was extremely helpful. Other site coordinators from my district did not go and they were confused. I recommended to them that they go to the meeting next time!”

While coordinators who attended the focus group also thought that the Directions for Administration were confusing, especially regarding the completion of background information if the school had taken advantage of the precode option, they were positive about the workshops. They said that the workshops should be conducted earlier, at more sites, and with fewer people per session.

CDE supported staff development through presenter workshops and teacher guides. Comments from the focus group about those efforts were strongly positive, especially for the option to access information via the Internet.

Logistics, Scheduling, and Security

Feedback in this area concerned extended test-taking time, breaks, the length of the ELA test, and options for other students.

The main logistics problem in the observed schools was balancing the option of extended time for students who needed it with test security and test conditions. School A did not provide extended time but had very good test security. At the end of both sessions, proctors alerted students that time was almost up and they should finish the test; they did not mention that additional time was available. Everyone took a break between sessions. Because this school allotted over 2 hours for each session, all students appeared to finish by the scheduled time, but some students in each session clearly rushed to complete their essays.

School B provided extended time and preserved testing conditions but did so at the cost of test security. This school tested students in an auditorium with lapboards and allowed about 3 hours for testing (because they did not precode answer documents, completing the background section took 30 minutes). Students ignored the section breaks, moving directly to Section 2 as soon as they completed Section 1. After students finished Section 2, they left the auditorium. Even though students had a chance to change their answers based on information they got during the break, the approach minimized disruptions for more deliberate students. About 5% of the students had not finished by the time lunch started. They were released to lunch and told to report to a classroom to complete the test. Although this model was not typical of the schools in the survey, it was not unique: Two other schools disregarded the sections (and another plans to next time); five allowed students to finish the first section after the break; and six had students finish after lunch.

School C tested students in classrooms but had not given proctors guidance on extended time because feedback from schools that had tested in March was that time was adequate. As a result proctors gave a variety of options to students who needed more time. In some classes, such students were sent to the library. In another class, students were told they could work through the break but no longer than that. Some students who needed time for Section 2

continued through lunch and received compensatory time for lunch. A survey respondent wrote: “When students need more time, it is a logistical nightmare.”

A consistent comment from all sources was that the ELA exam was too long. For example, a district coordinator commented that “kids max at 2 ½ hr,” and a proctor at an observed school said, “These kids are fried.” As a result of similar comments, CDE has established a schedule for 2002 that will test ELA over 2 days. The length of the math test was not cited as a problem, but district coordinators cautioned that the apparently comfortable time requirements might be because many students who lacked algebra skills did not do those calculations. For math, only about 1% of the students failed to answer the last question on the test. For ELA, approximately 9% of the students did not attempt the final question, which was an essay.

Schools were also concerned about what to do with other students during testing. School A had a schoolwide writing activity, which freed up classrooms and teachers, and gave flexibility for the lunch schedule, but also resulted in significant absenteeism. Two other schools had special schoolwide activities. Focus-group coordinators reported that other schools scheduled field trips and minimum days. Most of the surveyed schools held to a regular class schedule for other students and about 25% conducted regular classes with a revised schedule. Only seven schools reported lower attendance than normal by other grades.

School and district coordinators requested the option of Saturday testing or using non-instructional days for testing. At the coordinator focus group, CDE explained that the Saturday option was impractical because, under the California Education Code schools could not mandate Saturday attendance.

Several school site coordinators from both the observation and survey samples reported concern about logistics for 2002 related to having to test 9th-grade volunteers as well as 10th graders who did not pass in 2001. At the coordinator focus group, CDE said that legislation had been introduced to eliminate testing of 9th graders.

Test Administration Support

Support included the option of precoding identification to answer documents, delivery of materials, and hotline support from AIR and NCS. Comments from all sources were overwhelmingly positive. About 75% of the respondents to our survey reported taking advantage of precoded answer documents, and the same number said they will use the option again. One school coordinator considered CAHSEE the easiest to administer of all statewide tests the school conducts (excluding logistics).

Accommodations and Regulations

Two of the observed schools did not provide any accommodations for English learner (EL) students or students with disabilities. One of those two schools encouraged special education students to opt out of CAHSEE, and the other tested all students without regard to status. The only school that tested special education students at all differently grouped the students with their regular classes in their regular rooms, which allowed the proctor to give special attention to instructions. The special education students did not need extra time; in

fact, their biggest problem seemed to be maintaining effort through the session. After 1 hour, most had finished and all but one had finished after 1 hour and 15 minutes. In contrast, fewer than 10% of students in a regular session were finished after 1 hour, and the modal completion time was about 90 minutes.

Although two of the observed schools had high populations of Spanish speaking students, no school offered the option of using glossaries. In fact, there were no official glossaries for the 2001 administration since the regulations permitting glossaries had not been finalized. There was a place on the answer sheet to indicate that glossaries were provided and apparently some form of glossary was provided to a few students. Similarly, regulations regarding calculators were not yet finalized. There was no place on the answer sheet to indicate that calculators were provided, but seven testing coordinators responding to our survey indicated calculator use.

The surveys also reflected a low frequency of accommodation. School site coordinators reported 16 cases in which special education students took advantage of calculators, glossaries, readers, or large-format materials. Because some district coordinators in the focus group raised the possibility that students in large schools might have more access to accommodations than others, the distribution of accommodations by school size is shown in Table 3.2. Although the number of accommodations is too small for any final conclusion, the number of accommodations offered per school in the sample is virtually the same for small schools (.45) as for large schools (.47)

TABLE 3.2 Accommodation for Students With Disabilities by School Size *

	Enrollment:	501+	100-500	1-99	Total
Accommodation	Number of Schools:	17	14	11	42
Calculator		4	0	3	7
Glossary		0	1**	0	1
Reader		3**	2	2	7
Large Format		1	0	0	1

* Based on our Spring 2001 survey of 42 test coordinators in our longitudinal study sample.

** Also for EL (English learners)

Table 3.3 shows the number of students who were provided various accommodations according to information recorded on the student answer sheets. At this time it is not fully clear how different schools interpreted the reporting categories used. *Scheduling* accommodations, for example, generally meant additional breaks, since all students were to be allowed almost unlimited time. This was clearly the most frequent accommodation. *Presentation*, the next most frequent accommodation, generally meant large format text.

Accommodations for EL were even less frequent. As shown in Table 3.2 above, only one school in the survey offered glossaries to EL students and one provided the option of a reader. Coordinators were asked to identify other accommodations. These included separate rooms (two special education; one EL), extended time (three special education), and a bilingual aide (EL).

TABLE 3.3 Accommodations Reported for All Students Testing in March 2001

Accommodation	ELA		Mathematics	
	Number	Percent	Number	Percent
Scheduling	6,712	1.92	6,403	1.85
Presentation	1,530	0.44	880	0.25
Braille	108	0.03	40	0.01
Response	924	0.26	1102	0.32
Glossary	403	0.12	118	0.03
Test Read Aloud	N/A	N/A	1564	0.45

The extent of accommodations was no doubt affected by uncertainty about whether results would count for graduation, which may have led to reduced participation of special education and EL students. About 40% of the surveyed coordinators reported that they tested fewer than half of the eligible students with disabilities and about 30% of EL students. In addition, coordinators in the focus group reported confusion about which means of accommodation were available. Consistent with those reports, about 40% of the school coordinators expected more accommodation in 2002.

Recommendations for Future Test Administrations

Logistics, Scheduling, and Security. The plan to conduct the ELA session over 2 days is a good idea. It will greatly reduce the most severe problems with extended time and test security. However, the problems also apply, on a smaller scale, to math. Coordinators in the focus group requested models of approaches that are effective. At least two models should be developed for math to cover classroom and large-group (i.e., gym or auditorium) environments. Both should have a recommended end-of-session statement that makes the option of additional time explicit and should include arrangements for a room and a trained proctor to provide extended time. When developing the large-group model, it would be desirable to consider more flexibility in security measures.

Test Administration Support. The high-quality support should continue.

Testing Manuals, Workshops, and Staff Development. The only problems were the clarity of one of the manuals, Directions for Administration, and availability of the workshop. CDE has directed the developer to revise the Directions for Administration. It would be a good idea to continue the workshop at least for 2002 with a greater emphasis on increasing the number of school site coordinators who participate. The workshop should include breakout sessions for coordinators who will test in classrooms and those who will conduct large-group sessions.

Accommodations and Regulations. CDE is increasing coordination with Special Education coordinators and advocates. In the new development contract, the Department is also requiring the developer to produce second-language glossaries for the mathematics test, and is seeking legislative clarification on the intent of the EL waiver. These actions, plus stable expectations for 2002 testing, should result in more widespread use of accommodation options and a better sense of whether guidance is adequate. Because the increase in accommodation will require logistical support, we recommend that Special Education coordinators be invited to attend the coordinator workshops, if possible with their test

coordinator. CDE or the test developer should conduct breakout sessions on logistical support for the accommodations.

Review of Item Statistics

We computed item statistics based on all of the roughly 350,000 students taking each of the two exams. Items performed close to original expectations with respect to the difficulty and information value of each item. No significant problems were found.

We selected a random sample of 9,000 students for each exam and used their responses to compute item response theory (IRT) parameter estimates. Item response theory parameters provide a function indicating the probability of a correct response (or particular score level for the essay questions) for students at a given (but unobserved) level of achievement. This function is typically used in reverse to estimate the unobserved level of achievement from the observed patterns of correct and incorrect responses. AIR used a relatively parsimonious IRT model (1-parameter) that leads to a clear relationship between number correct and underlying scale scores. In our analyses, we used more complex models—the 3-parameter logistic model (Lord & Novick, 1968) for multiple-choice questions and an 8-level partial credit model (Muraki, 1992; 1997) for the essay questions. Our purpose in fitting these models was not to develop the reporting scale, but to provide estimates of score accuracy that were as accurate as possible.

In our February 2002 report, we will compare item statistics from the test forms used in the March and May administrations. Data from the May administration was not available at the time this report was written.

Review of Item Scoring Procedures

HumRRO staff observed training of the table leaders and then the individual scorers who rated the responses to each of the two essay questions. Briefly the scoring process worked as follows:

- Each essay was independently scored by two different judges.
- If the judges both agreed that the paper was unscorable or if they both gave scores and these scores did not differ by more than 1 point then the final score was the average of the two judges' ratings (or 0 if they both agreed the response was unscorable). Differences of one point were expected for papers near the boundary of the scoring levels ("fence sitters").
- If the judges disagreed as to whether the response was scorable, or if they gave scores that differed by two or more points, the paper was read and scored by a third scorer (usually the table leader). If the third judge agreed with one of the first two judges, then that rating was the final score.
- It was often the case that the 3rd judge gave a different rating than either of the first two judges, usually a rating falling between the ratings of the first two judges. In this

case, a 4th judge (who was generally more experienced in the scoring process) read the paper. The 4th judge's rating, which always agreed with the ratings of one of the first 3 judges, was taken as the final score for the essay.

Table 3.4 shows the frequency of agreement between the first two judges and the frequency of different ways in which initial disagreements were resolved.

TABLE 3.4 Scoring Agreement for the Essay

Result	First Essay Question		Second Essay Question	
	Frequency	Percent	Frequency	Percent
Absolute Agreement	260,381	74.4%	226,831	64.8%
Difference of 1 Point	85,586	24.5%	115,214	32.9%
Disagreement over Scorability	669	0.2%	508	0.2%
Scorable, but difference > 1	2,202	0.6%	4,182	1.2%

As indicated in the above table, disagreements by 2 points or more were quite rare. The first two judges reached sufficient agreement more than 99% of the time for the first essay and roughly 98% of the time for the second essay. Where disagreements did occur, there was a reasonable process for their resolution.

Setting the Minimum Passing Score

The Score Scale

Efforts to determine the minimum performance required for passing each test focused on a total points, or raw score, scale for the form of each test used in the March 2001 administration. The primary question was how many of the maximum possible raw score points a student must obtain to pass the exam.

At the first stage of scoring, a "raw score" is computed for each student. *For mathematics*, the raw score is simply the number of questions answered correctly. *For ELA*, the raw score is a weighted combination of the number of correct answers to the multiple-choice questions and the student's scores on each of the two essays. The exact equation is:

$$\text{Raw Score} = .7683 * \text{MC} + 3.3750 * \text{CR}$$

Where MC is the number of multiple-choice items (out of 82) answered correctly and CR (constructed response) is the sum of the two essay scores, each of which ranges from 0 to 4 in half-point increments (except that it is not possible to get a score of 0.5). For mathematics, the raw scores range from 0 to 80. For ELA, the maximum possible raw score is $.7683 * 82 + 3.3750 * 8 = 90$. For ELA, the raw scores are rounded to whole numbers.

As with most testing programs, scores ultimately will be reported on a standardized scale. Raw scores are not exactly comparable across test forms due to minor differences in the difficulty and information value of the questions in each test form. Scores on this standardized scale will be comparable across different test forms. A separate translation will be developed for each different test form mapping the raw scores into scale scores. The initial score scale will be a linear translation of the Rasch (one-parameter) IRT scale (see for

example, van der Linden & Hambleton, 1997) developed from the March administration. It is expected to range from 250 to 450 with the passing level somewhere near the middle. Plans for projecting raw scores from subsequent forms (including the test form used in May 2001) have been outlined, but not extensively reviewed.

Standard Setting Panels

The test developer negotiated a subcontract with Howard Mitzel of Pacific Metrics to conduct a standards-setting workshop using the bookmark procedure explained below. The workshop was conducted May 18–20, 2001. Two HumRRO observers attended the workshop.

CDE had arranged for 90 workshop participants, 45 each for ELA and mathematics. Most participants were classroom teachers or content specialists who had been nominated by their districts. In addition, the roster included university faculty, school and district administrators, parents, and business people. About 10 had been on the CAHSEE Panel or Technical Advisory Committee. Almost all panelists participated in all sessions on both days. As a whole, the panels were broadly representative of the state and knowledgeable about the California content standards and high school curriculum. Individually, the level of commitment and effort was high.

The bookmark procedure was appropriate for the purpose and was implemented faithfully. The process began with a general orientation and an opportunity for each participant to take an abbreviated form of the exam. At the orientation, Mitzel stressed the need to make decisions based on test content. He described the ordered-item booklets, one each for mathematics and ELA, which listed the test questions in order of difficulty based on the March administration. For each question, participants were to discuss what made the question more difficult than the preceding questions, with particular attention to other questions from the same content strand.

Participants next moved to rooms for their content area, where they worked in groups (tables) of five or six participants, one of whom had been trained to be a table leader. Each table appeared to follow the directed procedure for discussing the knowledge and skills required by each question. A list showing the specific content standard assessed by each item was given to the math group and several tables noted that there were easy and difficult questions for each of the content strands into which the standards are organized.

After each table had discussed each of the test questions, the entire group reconvened for training on how to place a bookmark. Each participant was to place a marker to divide two item sets: items covering material each student should know and items covering material that is "maybe not needed" to get a diploma. Mitzel emphasized the differences between the bookmark placement and number-correct scores. After the training, participants worked individually to place the marker in their ordered-item booklets.

The next day, each table received a summary of individual bookmarks for the table showing the lowest, highest, and median bookmark placement. Table members discussed the rationale for their initial bookmark placements. Following this discussion, each panelist provided a revised bookmark placement. After lunch, the revised results were presented,

showing the median bookmark and range for each table, along with what the pass rate would be for the median for the room. For math, many, but not all, were surprised by how low the projected pass rates were. The rate for ELA seemed to be what most participants expected. A representative from each table then described the rationale(s) for the table. Most were optimistic about the potential for students to improve during the 10th and possibly 11th grades. The median ratings did not change based on the impact information. One change that might be considered in future workshops would be to report the passing rates associated with the minimum and maximum bookmark placements in addition to reporting the passing rate for the median bookmark placement. This would give participants a better understanding of the level of consensus they had achieved.

In the end, both panels recommended that the minimum passing score be set at 70% of the total possible points on each test. Though that is suspiciously close to traditional passing grades, we heard no evidence either that participants considered any criterion besides content or collaborated between content areas.

The Final Decision

CDE staff reviewed the panel's recommendations and discussed them with the Superintendent. The Superintendent stated that the recommendations of the standards-setting panel should be considered a long-term goal. She recommended that the provisional passing rates for the initial implementation of the CAHSEE be somewhat more lenient. The specific recommendation, 60% of total possible points for ELA and 55% for Math, reflected the fact that the current content standards had not been in place when members of the Class of 2004 were developing prerequisite skills. She also recommended that the State Board of Education should reexamine the test scores after students in the Class of 2004 are well into the 10th grade curriculum to determine whether students are passing in sufficient numbers to demonstrate that adequate opportunities to learn are being provided. On June 7, the Board adopted the passing standards recommended by the Superintendent.

Who Passed?

Once the minimum passing scores were established, it was possible to conduct a number of analyses to see who passed each of the two parts of the exam. A major charge for our evaluation is to report passing rates for specific demographic groups, including all students, economically disadvantaged students, students with disabilities, and EL students. Table 3.5 shows our estimates of the passing rates for each of these groups and also by gender and race. It should be noted that these estimates are based on initial data files supplied by AIR and NCS and do not include results from the May administration. Final counts including the May results will be included in our February 2002 report to the legislature.

The preliminary data files were not merged and did not contain student identifiers that would allow us to see how many students passed both parts of the test. Merged information will be available in August when the scores are issued.

TABLE 3.5 Passing Rates for each Test

Group	Sex	ELA		Mathematics	
		Number	Pct. Pass	Number	Pct Pass
All Students	All	349,938	64.59	345,810	44.65
	Female	171,161	71.52	169,070	43.26
	Male	177,608	58.03	175,304	46.10
African American	All	28,374	50.22	27,930	24.54
	Female	14,272	59.89	14,066	24.51
	Male	14,003	40.42	13,759	24.65
Asian	All	30,373	76.79	30,579	70.75
	Female	14,644	81.52	14,768	70.23
	Male	15,678	72.43	15,746	71.28
Caucasian	All	127,494	81.95	125,293	63.69
	Female	62,442	88.26	61,373	62.37
	Male	64,799	75.88	63,628	64.99
Hispanic	All	140,710	48.68	138,709	25.58
	Female	69,156	56.04	68,172	23.64
	Male	71,224	41.60	70,190	27.50
Economically Disadvantaged	All	108,847	46.18	107,692	25.98
	Female	52,157	53.57	51,654	24.06
	Male	56,524	39.41	55,840	27.79
Students with Disabilities	All	32,421	22.46	31,857	12.33
	Female	11,011	27.54	10,773	9.40
	Male	21,337	19.88	20,940	13.84
English Learners	All	47,621	29.72	47,497	16.93
	Female	22,156	35.33	22,086	14.69
	Male	25,361	24.89	25,276	18.92

The ELA test combined multiple-choice and essay questions. One question that was debated extensively by the CAHSEE Panel was how well students should have to perform on each part in order to be considered proficient. In the end, separate passing levels were not established for each question type or for different content levels. The result was a compensatory model, where exceptional performance in one content area or on one type of question would compensate for lower performance in other content areas or on other types of questions.

Table 3.6 below shows the number of students with each possible total essay score (the sum of the scores on the two essays) and the percent of these students who will receive a passing score on the ELA exam. A very small number of students (242) passed the ELA exam without writing either of the essays. Nearly all of the students who passed ELA (more than 99%) had a total essay score of at least 3.0, meaning that two of the four judges rated one or the other of their essays at score level two or higher. Roughly 94 percent of the students who passed received a total essay score of 4.5 or higher, meaning that they must have received a score of at least 2.5 on one of their two essays. Thus nearly all students who passed the ELA exam received a score of 3 or higher on the 4-point rating scale from at least one of the four judges who rated their essays.

TABLE 3.6 Percent Passing the ELA Exam by Total Essay Score

Total Essay Score	No. of Students	% of Students	No. Passing ELA	% Passing ELA
0.0	15,920	4.5%	242	1.5%
1.0	5,968	1.7%	104	1.7%
1.5	3,100	0.9%	68	2.2%
2.0	12,096	3.5%	753	6.2%
2.5	7,494	2.1%	689	9.2%
3.0	14,693	4.2%	2,369	16.1%
3.5	11,494	3.3%	2,382	20.7%
4.0	24,772	7.1%	7,763	31.3%
4.5	26,077	7.5%	12,410	47.6%
5.0	39,320	11.2%	25,497	64.8%
5.5	43,508	12.4%	34,629	79.6%
6.0	65,278	18.7%	59,761	91.5%
6.5	37,004	10.6%	36,214	97.9%
7.0	24,425	7.0%	24,357	99.7%
7.5	12,253	3.5%	12,248	100.0%
8.0	6,536	1.9%	6,536	100.0%
Total	349,938	100.0%	226,022	64.6%

Table 3.7 shows a similar breakout of passing rates for different number correct scores on the multiple-choice questions. It was not possible to receive a passing total score without answering at least 36 of the multiple-choice questions correctly. The essay score translated to a maximum of 27 of the 90 possible total score points and a score of 54 was required for passing. At least 36 multiple-choice questions had to be answered correctly to achieve a score of 27 on the multiple-choice portion of the ELA exam. In fact, no one passed the exam without answering at least 38 of the 82 multiple-choice questions correctly. Students who answered 71 questions correctly received at least 54 points from the multiple-choice portion and so were guaranteed a passing total score.

TABLE 3.7 Number and Percent of Students Passing the ELA Exam by Total Multiple Choice Score

Multiple Choice Total Score	Number of Students	Percent of Students	Number of Students Passing	Percent Passing for this MC Score
0-37	66,310	18.9%	-	0.0%
38-40	13,269	3.8%	27	0.2%
41-45	24,875	7.1%	2,424	9.7%
46-50	30,156	8.6%	16,639	55.2%
51-55	35,126	10.0%	29,323	83.5%
56-60	40,839	11.7%	38,972	96.2%
61-70	88,495	25.3%	87,769	99.2%
71-82	50,868	14.5%	50,868	100.0%
TOTAL	349,938	100.0%	226,022	64.6%

For mathematics, we examined passing rates for different course completion patterns. Information was recorded on the student answer sheets as to the grade (from 7 to 12) in which specific mathematics courses were taken. Unfortunately, there was no specific way to indicate that a given course was not taken. For 106,987 students, there were no marks for any course in the preliminary data files. The course status of these students was set to missing.

Course status was set to invalid for a few students who indicated courses taken in grades they had not reached. Otherwise, students were classified on the basis of whether they had taken or were taking Algebra 1. Students who took Algebra 1 prior to the 9th grade were further classified according to whether they were or were not currently enrolled in Geometry. Students who had not taken Algebra 1 but had taken or were enrolled in an Integrated Math course were coded separately. Table 3.8 shows the number of students and passing rates for the CAHSEE Math exam for each math course status category. Not surprisingly, students who had completed Algebra 1 and were enrolled in Geometry had a very high passing rate – in excess of 90%. Students who had not taken and were not enrolled in Algebra 1 had very low passing rates – below 20%.

TABLE 3.8 CAHSEE Math Passing Rate by Math Courses Taken

Math Course Status	Number of Students	Percent Passing Mathematics
Completed Algebra and Enrolled in Geometry	35,923	90.29
Completed Algebra, not Enrolled in Geometry	10,819	60.74
Completed or Enrolled in Integrated Math 1	11,283	52.81
Currently Enrolled in Algebra 1	118,097	48.77
Algebra 1 not Taken	61,537	18.23
Course Information Missing	106,987	37.80
Invalid Course Information	1,264	16.67

One key question is the extent of variation in passing rates by school. To the extent that relatively few students from a particular school pass the exam, there is reason to believe that somewhere along the way these students have not had the opportunity to learn either the material covered by the test or, even more likely, key prerequisite skills taught at lower grades. Conversely, if most students in a school do pass the exam, there is good reason to believe that students at that school did have adequate opportunity to learn the required material. Table 3.9 and Table 3.10 below show the number of schools where very few (less than 20%) of the students tested received passing scores through the number of schools where nearly all students (at least 90%) of the students passed. The preliminary data files contained 1,500 different school codes for the ELA exam and 1,501 school codes for the mathematics exam. In nearly a quarter of these schools, fewer than 10 students were tested. For these schools very low or high passing rates are not surprising. Most of the schools where larger numbers of students were tested had passing rates between 25% and 75%, consistent with the overall passing rates for the state as a whole. Schools where at least 100 students were tested and the passing rate was below 25% may deserve special attention.

TABLE 3.9 Number of Schools by Passing Rates and Students Tested – ELA

% Passing in the School	Number of Students Tested				Total Schools
	1-9	10-99	100-400	500+	
0-10%	103	31	1	1	136
10-25%	30	81	10	7	128
25-75%	137	206	234	199	776
75-90%	27	60	148	80	315
90-100%	44	41	50	10	145
Total	341	419	443	297	1500

Note: For schools where 500 or more students were tested, the passing rates ranged from 7.6% to 98.6%; for schools where more than 100 to 499 students were tested, the passing rates ranged from 1.1% to 100%.

TABLE 3.10 Number of Schools by Passing Rates and Students Tested – Mathematics

% Passing in the School	Number of Students Tested				Total Schools
	1-9	10-99	100-400	500+	
0-10%	206	140	13	6	365
10-25%	43	83	42	55	223
25-75%	87	148	336	218	789
75-90%	7	22	43	12	84
90-100%	18	9	12	1	40
Total	361	402	446	292	1501

Note: For schools where 500 or more students were tested, the passing rates ranged from 5.5% to 98.8%; for schools where more than 100 to 499 students were tested, the passing rates ranged from 1.7% to 96.5%.

Student Questionnaire

At the end of each test, students completed a brief questionnaire on their reactions to the test and their plans for high school and beyond. We examined the responses to these questions separately for students who did or did not pass each of the two tests. Tables 3.11–3.17 show the results.

TABLE 3.11 How did you prepare for this test?

Response	Failed ELA	Passed ELA	Failed Math	Passed Math
A. A teacher or counselor told me about the purpose and importance of the test	23.4%	34.7%	28.5%	30.6%
B. I practiced on a sample test	6.2%	6.4%	7.6%	7.1%
C. A teacher spent time in class getting me ready to take the test.	15.4%	19.5%	19.1%	16.3%
D. I did not do anything to prepare for this test.	22.1%	30.5%	33.0%	44.5%
No Response	32.9%	8.9%	11.8%	1.5%

TABLE 3.12 How important is this test to you?

Response	Failed ELA	Passed ELA	Failed Math	Passed Math
A. Very important	46.1%	52.8%	59.6%	52.7%
B. Somewhat important.	14.0%	22.5%	20.3%	30.6%
C. Not Important	3.0%	3.6%	3.3%	5.5%
No Response	37.0%	21.1%	16.8%	11.2%

TABLE 3.13 Do you think you will graduate from high school?

Response	Failed ELA	Passed ELA	Failed Math	Passed Math
A. Yes	43.7%	73.3%	63.7%	84.5%
B. No	2.1%	0.5%	2.1%	0.6%
C. Not sure	17.1%	5.0%	17.4%	3.7%
No Response	37.0%	21.2%	16.9%	11.2%

TABLE 3.14 Will it be harder to graduate if you have to pass a test like this?

Response	Failed ELA	Passed ELA	Failed Math	Passed Math
A. Yes, a lot harder	27.2%	16.4%	34.5%	13.4%
B. Somewhat harder	19.2%	33.8%	31.3%	38.1%
C. Not much harder at all	6.7%	20.9%	8.7%	31.1%
D. I really don't know	9.8%	7.6%	8.6%	6.1%
No Response	37.1%	21.3%	17.0%	11.3%

TABLE 3.15 What do you think you will do after high school?

Response	Failed ELA	Passed ELA	Failed Math	Passed Math
A. I will join the military	6.5%	3.4%	7.1%	6.6%
B. I will go to community college	10.1%	7.6%	12.4%	6.6%
C. I will go to a four-year college or university	25.3%	55.1%	38.5%	64.3%
D. I will go to Vocational/Technical/Trade School	2.1%	1.6%	2.3%	1.6%
E. I will work full-time	4.8%	1.2%	4.6%	1.0%
F. I really don't know what I will do after high school	13.4%	8.7%	17.2%	10.6%
No Response	37.8%	22.3%	18.0%	12.4%

TABLE 3.16 How sure are you about what you will do after high school?

Response	Failed ELA	Passed ELA	Failed Math	Passed Math
A. Very sure	25.8%	36.5%	34.4%	40.6%
B. Somewhat sure	25.8%	34.2%	35.4%	38.1%
C. Not sure at all	11.2%	8.1%	13.3%	10.1%
No Response	37.2%	21.2%	17.0%	11.3%

TABLE 3.17 How well did you do on this test?

Response	Failed ELA	Passed ELA	Failed Math	Passed Math
A. I did as well as I could.	42.5%	63.5%	53.5%	66.6%
B. I did not do as well as I could have, because	19.6%	14.7%	28.9%	21.7%
A. I was too nervous to do as well as I could.	12.3%	6.8%	10.6%	4.4%
B. I was not motivated to do well.	5.9%	4.5%	6.0%	4.8%
C. I did not have time to do as well as I could.	5.5%	4.1%	2.7%	1.4%
D. There were questions on this test that covered topics I was never taught.	6.8%	3.8%	18.7%	11.5%
E. There were questions on this test that covered topics I was taught, but I did not remember how to answer them.	6.2%	4.0%	14.6%	12.9%
F. There were other reasons why I did not do as well as I could have.	11.2%	10.4%	10.3%	8.1%
No reason checked.	0.1%	0.1%	0.2%	0.2%
No Response	37.9%	21.8%	17.6%	11.6%

Test Score Accuracy

A key question is how accurately students were classified as having achieved or failed to achieve the passing standard. We fit a statistical model based on item response theory to estimate how often students at each score level would be correctly classified. In our June 2000 report, we constructed a number of “pseudo-forms” and then estimated classification accuracy for each form. The procedure used here was the same except that we used data on the actual test form.

Data from the March administration were used to estimate item parameters for each test question. These parameters provide a prediction function giving the probability of a correct response (or of each score level for the essay questions) as a function of the student’s standing on an unobserved achievement scale. We selected 100 points along the IRT ability scale, corresponding to percentile points, so that each point represented one percent of the student population. For each point, we computed the probability of each possible pattern of correct and incorrect answers and, for the ELA test, each possible pattern of essay question score levels³. Each pattern corresponded to a specific number correct score. For mathematics, the number correct score was just the number of correct answers. For ELA, the number correct score was the weighted average of the number of multiple-choice questions answered correctly and the sum of scores on the two essay questions. By observing the probability of different patterns of number correct scores, we can estimate how much the student’s observed score from a single testing will differ from his/her “true” score (the average of scores from a large number of parallel administrations). Specifically, for each “true” score level, we estimated the proportion of time a student at that level would obtain an observed score that was above or below the passing level. We then compared these proportions to the student’s classification based on his/her “true” score to determine the percent of time the

³ Under the statistical models used, the “conditional” probabilities of correct answers to different test items are independent. This means that the probability that a student *at a given ability level* passes two different items is the product of the passing probabilities for each of the individual items.

student would be correctly and incorrectly classified as passing the test. Table 3.18 summarizes the expected scores and error of measurement for students at different percentiles. The errors of measurement shown in this table, while interesting, are not the most important indicators of accuracy for a test used to classify students as above or below a given level. We were interested, instead, in a measure of the accuracy of the classification decisions. While several researchers have worked on indicators of classification accuracy, we have developed our own approach to characterizing the accuracy of a test used for classification decisions. The basic concept is to divide the score scale into four regions. The passing level divides the upper and lower two regions. Students at levels 1 and 2 have true scores that are below the passing level and students at levels 3 and 4 have true scores above the passing level. The dividing point between levels 1 and 2 is the point at which a student will have an exactly 10 percent chance of passing from a particular testing session. Students in level 1 are below the passing point and have a greater than 90 percent chance of being accurately classified as being below passing. Students at level 2 are near enough to the passing point to have a significant chance of misclassification, given the accuracy of the test. Similarly, the point at which a student has exactly a 90 percent chance of passing divides levels 3 and 4. Students at level 3 are also near enough to the passing point to have a significant chance of misclassification, while level 4 students are fairly certain to be correctly classified as passing.

TABLE 3.18 Error of Measurement

Percentile	ELA			Mathematics		
	Expected Raw Score	Std. Error of Measurement	Probability of Passing (Pct.)	Expected Raw Score	Std. Error of Measurement	Probability of Passing (Pct.)
1	16.28	4.12	0.0	18.63	3.66	0.0
10	35.42	6.94	0.1	23.42	3.93	0.0
20	46.14	6.03	8.1	27.83	4.08	0.0
30	53.27	5.16	48.5	32.21	4.16	0.4
40	58.90	4.54	86.9	36.74	4.17	5.3
50	63.67	4.10	98.2	41.35	4.14	30.2
60	68.16	3.74	99.9	46.37	4.04	76.2
70	72.27	3.41	100.0	51.55	3.89	98.0
80	76.46	3.04	100.0	57.50	3.64	100.0
90	80.82	2.58	100.0	64.63	3.20	100.0
99	86.94	1.57	100.0	76.95	1.62	100.0

Levels 2 and 3 constitute a “zone of uncertainty” where correct classification is at risk. As shown in Table 3.19 below, between 37% and 38% of the students whose true score was at level 2 actually passed the exam. Similarly, between 27% and 30% of the students in zone 3 failed to pass. Outside this zone of uncertainty, the rate of correct classification ranges from 96% (level 1) to 99% (level 4).

TABLE 3.19 Classification Error

True Achievement Level	ELA			Mathematics		
	Raw Score Range	Pct. in Range	Pct. Passing	Raw Score Range	Pct. in Range	Pct. Passing
1, Well Below Cut	00.0-46.5	19.9	3.7	00.0-42.6	51.4	2.4
2, Slightly Below Cut	46.5-54.0	10.4	37.0	42.6-44.0	2.0	37.8
3, Slightly Above Cut	54.0-59.7	10.5	70.7	44.0-48.6	9.8	73.1
4, Well Above Cut	59.7-90.0	59.2	98.8	48.6-80.0	36.7	98.8

The classification accuracy of a test may be characterized by the narrowness of the zone of uncertainty (levels 2 and 3) and by the proportion of examinees that falls outside the uncertain range. For ELA, the zone of uncertainty ranged from 46.5 to 59.7 raw score units, corresponding to 51.7% to 66.3% of the possible 90 points. Of these students, 79% fall outside the zone of uncertainty. For mathematics, the zone of uncertainty is narrower, ranging from 53.3% to 60.8% of the 80 possible points. In addition, 88% of the students were outside the zone of uncertainty on the mathematics test.

At their December 2000 meeting, the SBE approved revised test specifications that included fewer questions for each of the two exams. Both tests were shortened relative to the original specifications, from about 100 multiple choice questions down to 80 to 82 questions. The result was inevitably some loss in the accuracy of the test scores and the precision with which students are classified as above or below the passing standard. The accuracy of the ELA test is further affected by the relatively large weight given to the two essay questions in comparison to the multiple-choice. Nonetheless, both tests appear to be performing reasonably well. Between 80% and 88% of the students are unambiguously classified as being above or below the passing standard. For the remaining students, their true achievement is quite near the passing standard. The consequences of passing a modest number of students who are only slightly below the standard while requiring a modest number who are barely above the standard to retest would not appear to be serious.

Two qualifications are in order. First, there are no hard standards for classification accuracy. The tendency has been to fall back on traditional estimates of test reliability based on the ratio of measurement error to total score variance across the whole range of the test. Second, the estimates of the proportion of students whose true achievement falls in each range and the percent passing within each range are based on assumptions underlying particular statistical models⁴.

⁴ We used the 3-parameter logistic model for the multiple-choice questions to accurately model the effects of guessing. We used an 8-level partial credit model (Muraki, 1992) for each essay question to model the 8 possible scores a student might receive based on the combination of two independent ratings.

CHAPTER 4: PRINCIPAL AND TEACHER SURVEYS

Introduction

Educational reform efforts such as California's high school exit examination will exert an impact beyond just the receipt of a standards-based diploma. By providing feedback about student performance, the reform will serve as a catalyst for change throughout districts and schools. In addition to the performance information, the assessment is seen as a way to influence and improve teaching and learning. Consequently, a key research issue is the relationship between the exit exam and teaching practices advocated by reform standards. One purpose of a thorough evaluation, then, is to find out about what is going on in the classrooms.

Surveys are one component of the evaluation method to examine such consequences and assess the impact of the CAHSEE. In order to identify trends over time, HumRRO established a longitudinal sampling base. We selected this representative sample of 92 high schools from 27 districts to be surveyed each spring. We collected Year 1 data from this sample in Spring 2000 and fielded similar surveys to the sample in Spring 2001. Two surveys were administered to capture Year 2 data: one for principals and another for teachers in the same schools. The principal survey requested demographic and background information about the school, students, and parents and inquired about issues such as familiarity with, planning for, and expected impact of CAHSEE. The teacher survey emphasized classroom practices as well as issues regarding familiarity with, planning for, and the predicted impact of CAHSEE. Given administration of these surveys early in the CAHSEE development and implementation process, both principal and teacher surveys contained several open-ended questions to allow respondents to clarify their responses and to inform HumRRO of any misunderstandings or omissions we might have about the operation of California schools and their relationship to district and state operations.

Survey Development

The following are the main questions addressed in these surveys:

1. What is the extent and type of current preparation for the CAHSEE?
2. What degree of familiarity do schools currently have with the CAHSEE?
3. How familiar are schools with the State Content Standards?
4. How familiar are schools with the CAHSEE score report?
5. What activities have schools undertaken to prepare students for the first administration of the CAHSEE?
6. How do schools anticipate addressing failures on the CAHSEE?
7. What are schools' predictions for first administration pass rates?
8. What are schools' predictions for the impact of the CAHSEE?

9. What are schools' predictions for influence of the CAHSEE on instructional practices?
10. What are schools' estimates of the percentage of students, by various student subgroups, who have had instruction in each of the content standards?
11. In what courses are the standards being taught, at what level are they being taught, and to whom are they being taught?

To the extent possible, survey items on the Spring 2001 surveys were identical to those on the Spring 2000 surveys. This matching served to maximize comparability across years, so that trends could be inferred. However, some items that addressed the “upcoming” test needed to be reworded to reflect the fact that the first administration had already occurred.

In addition, we had gained experience from the Fall 2000 District Baseline Survey that informed survey development. This survey was not part of the longitudinal survey program at the schoolhouse level, but rather was a one-time census survey of high school district officials. The California Department of Education (CDE) and HumRRO personnel expended considerable effort to ensure the highest possible quality and clarity of the survey items. Therefore, when developing the Spring 2001 surveys, we included some new items, as well as some items from the Fall 2000 instrument that had been improved from their earlier versions in the Spring 2000 survey.

Finally, some items were omitted and a few new items were added to the Spring 2001 version of the longitudinal surveys. A notable addition was the request that teachers identify specific courses in which standards are covered.

Sampling and Administration

The goal for the sampling plan was to select districts for inclusion in the CAHSEE evaluation data collection efforts that would be as representative as possible. A complete description of the sampling procedure is presented in Wise, et al. (2000a). In short, a representative sample of 27 districts was selected in Spring 2000 for intensive study over the course of the CAHSEE evaluation. Replacements were identified for each district (except for Los Angeles, which is irreplaceable) in case the targeted district could not participate. In each original and replacement district, we selected 1–15 high schools, depending on district size, to create a representative sample of 92 schools. Where possible, we identified replacements for each selected school. In small districts containing only one or two high schools, all schools were in the original sample. Sampling ratios were established so that each school would represent approximately the same number of 10th grade students. In this way simple averages across the schools in the sample would provide estimates for all 10th grade students in the state.

The principals and teachers of these schools were surveyed in Spring 2000; results are reported in Wise, et al. (2000a). Schools from all but three districts participated at that time. In Spring 2001, all of the previously participating districts as well as two of the previously non-participating districts indicated a willingness to participate. One non-participating district was replaced.

The resulting sample for the principal and teacher surveys still comprised 27 districts. Principal and teacher survey packets were shipped in mid-May 2001 to 92 schools to the attention of the principal or POC. The packets included the following:

- Cover letter and instructions to principal
- One principal survey
- Cover letter and instructions to teachers
- Two teacher surveys—one labeled for English-language arts (ELA) and one labeled for mathematics
- One test coordinator survey
- Instructions and packaging for returning evaluation materials

We asked principals to complete their questionnaires or to designate someone to do so. We also asked them to identify one teacher of Algebra 1, or other appropriate mathematics course, and one 9th or 10th grade ELA teacher to complete the teacher surveys (if faculty size was sufficient). Each survey was contained in a sealable envelope to be returned to the principal for shipment to HumRRO. The cover letters to both the principal and the teachers encouraged respondents to contact a HumRRO project member if they had questions or concerns. A copy of the survey instruments is included in Appendix B.

We requested that evaluation materials be returned by the end of May. Follow-up telephone calls were initiated the first full week of June to schools that had not responded, to encourage completion of their evaluation materials.

Findings

Forty-five high school principals and 80 teachers, representing 48 schools across 22 districts, completed surveys. Results are reported in the following areas:

- Background
- Knowledge
- Preparation thus far
- Future plans
- Expectations
- Standards taught
- Other

Results are reported in two ways. Principal and teacher responses to the Spring 2001 survey are summarized. In addition, as appropriate, these responses are compared to responses to a comparable question on the Spring 2000 surveys; this provides information regarding trends and stability of responses over time. Note that these comparisons are presented at a summary level; that is, changes in responses from individual schools or districts are not presented.

The Spring 2001 principal and teacher surveys were distributed to 92 targeted schools. Principal surveys were returned from 45 schools, nearly half of the original sample, across 22 of the 27 districts. The remainder of the sample was unable to complete the surveys due to heavy staff demands at the end of the school year. One or more teacher surveys were

received from 40 schools, including most of the schools participating in the principal survey and also additional schools that did not return principal surveys.

Background

Principals were asked to provide demographic information on themselves. Over two-thirds of the respondents (71%) were male, 64% were White, 16% Hispanic, 11% African American, 2% Asian, 2% White/Hispanic, 2% other, and 1% declined to specify; 98% reported education beyond a bachelor's degree (85% master's degrees, 13% doctoral degrees). The respondents reported 1–30 years of experience as a principal (mean = 12.73, standard deviation (SD) = 8.45) and 3–30 years teaching experience (mean = 13.51, SD = 6.15). They had worked 1–26 years in their present school and 1–41 years in public schools.

Teachers also were asked to provide demographic information. Over half (59%) of the respondent teachers were female; 83% were White; 6% were Hispanic; 5% were Asian/Pacific Islander; 3% were Black; and 3% were other or declined to specify; 8% reported having only a bachelor's degree; most respondents reported education beyond a bachelor's degree (34% some graduate school, 53% master's degrees, 5% doctoral degrees); 50% indicated that the primary subject area they taught was English or language arts and 50% specified mathematics as their primary subject area. Eighty-nine percent indicated that they are certified in their primary subject area.

Principals were asked to provide background information on their schools. Eighty-two percent indicated that their school taught grades 9–12; 2%, grades 10–12; 7% indicated “other” combination of grades taught; and 9% did not record an answer to this question. The current number of teachers on staff ranged from 3 to 160, with a mean of 65.50 (SD = 50.46). Principals reported that the percentage of teachers with advanced degrees ranged from 0% to 100% (median = 39%). Principals also reported that 5–100% of their teachers were certified in the subject they are teaching (median = 93%). Fifty-one percent of principals indicated the staffing trend was best described by a decreasing proportion of teachers working out of credential; 27% indicated continuing at the same proportion of teachers working out of credential; 20% reported an increasing proportion of teachers working out of credential; and 2% declined to respond. The majority of principals (64%) reported counselor-student ratios greater than 300:1, 18% indicated 201–300:1, 2% indicated 101–200:1, 9% indicated less than 50:1, and 7% declined to respond. Sixty-nine percent of the responding schools currently have a testing coordinator. Most schools (80%) operate on a semester basis; 7% configure their school year in quarters, 2% configure their school year in trimesters, 9% operate year-round schools, and 2% declined to respond. The majority of principals (80%) reported that their schools hold 6–7 academic periods per day. They reported, on average, a graduation rate of 75%, with rates varying by racial/ethnic group. The most common response for the percent of seniors who will be attending either a 2- or 4-year college was 21–30%.

The survey asked principals to indicate whether their schools offered various specialty education programs. Eighteen percent offer remedial courses; 13%, magnet programs; 31%, special education; 27%, English learners (EL); 4%, multicultural/diversity-based; 29%,

Advanced Placement; 7%, International Baccalaureate; 20%, school/community/ business partnerships; 16%, targeted tutoring; and 4%, other.

Teachers were asked to provide some information about their own classes. Twenty-eight percent of teachers reported that 100% of their students were fluent English speakers; 49% indicated that 90–99% were fluent in English; 18% reported 75–89%; and 5% reported 50–74%.

The survey asked teachers to estimate the amount of time, on average, they believed students spend working on assignments outside the classroom each week. Half of the respondents (51%) estimated 1 to 3 hours; 18% estimated more than 3 hours; 26%, less than 1 hour; and 5%, none.

Teachers were asked to estimate how often they plan for students to participate in specific types of activities. The activities rated most frequently (once or twice a week or almost every day) were: (a) do work from textbooks (85%), (b) do work from supplemental materials (75%), (c) apply subject area knowledge to real-world situations (61%), (d) write a few sentences (64%), (e) work in pairs or small groups (71%), and (f) take quizzes or tests (64%).

Knowledge

Principals and teachers were asked to report their familiarity with the CAHSEE and state content standards. Sixty-two percent of principals responded that they knew the plans for administering CAHSEE, 25% indicated they knew what knowledge and skills are covered by CAHSEE, and 13% indicated they had only general information about the CAHSEE. No principal indicated they knew nothing about the CAHSEE. Teachers reported more “advanced” familiarity with the exam than the principals: 20% claimed to know the plans for administering CAHSEE and 55% knew what knowledge and skills CAHSEE covers. Twenty-four percent of principals indicated they had only general information about the exam and 1% reported not knowing anything about CAHSEE. In regard to the state content standards, 29% of the principals and 39% of teachers indicated they had general or essential information about the content standards; 71% of principals and 61% of teachers indicated they were very knowledgeable about the content standards. No principal or teacher indicated that he or she knew nothing about the state content standards.

The comparison of familiarity with CAHSEE and state content standards data from this year to last year can be found in Table 4.1. Principals’ advanced knowledge of the CAHSEE increased from last year, when only 22% indicated they were very familiar with the exam, 76% indicated they had only general information about the CAHSEE, and 2% indicated no familiarity. Teachers’ advanced knowledge of the CAHSEE also increased from last year when 11% claimed to be very familiar, 66% generally familiar, and 22% reported no familiarity. Knowledge of the state content standards appeared to remain stable from last year, when 31% of the principals and 29% of teachers reported general familiarity, 67% of principals and 65% of teachers indicated they were very familiar, and 3% of teachers indicated not at all familiar.

TABLE 4.1 Percentage of Principals and Teachers Familiar with CAHSEE and State Content Standards

Familiarity	Principals		Teachers	
	2000	2001	2000	2001
CAHSEE				
Very familiar	22	87	22	75
Had general information	76	13	66	24
No familiarity	2	0	11	1
State Content Standards				
Very familiar	67	71	65	61
Had general information	31	29	29	39
No familiarity	0	0	3	0

Thirty-two percent of principals versus 48% of teachers indicated they knew nothing about the CAHSEE score report, 52% of principals and 48% of teachers indicated they knew general/essential information about the score report, and 16% of principals versus 4% of teachers indicated they were very knowledgeable about the score report and how to apply the information.

Respondents were asked to identify the source(s) of their information regarding the CAHSEE. Most principals indicated that their information came through official channels. Principals reported receiving information from: their district (78%), the state (71%), the CDE website (49%), professional associations (44%), education organizations (42%), newspapers (38%), computer-based sources (7%), and other (7%). Teachers reported that their information came from: school-provided information (85%), district-provided information (63%), newspapers (49%), state-provided information (44%), professional associations (30%), education organizations (28%), computer-based sources (19%), and other (11%). Three percent of teachers indicated that they had no sources of information on the CAHSEE.

Principals were also asked to estimate how aware their students and parents were of the CAHSEE. Two percent estimated that their students knew nothing about the exam, 67% estimated their students had at least general information, and an additional 31% estimated their students had advanced knowledge of the exam (e.g., they knew what knowledge and skills are covered, the time of year when the exam is given, and/or which students have the opportunity to take the exam). Four percent estimated that their students' parents knew nothing about the exam, 76% estimated their students' parents had at least general information, and an additional 20% estimated their students' parents had advanced knowledge of the exam. Principals' ratings of student and parent familiarity with CAHSEE increased from last year. In 2000, two percent of principals responded that students/parents were very familiar or familiar with HSEE, 12% estimated that students/parents were somewhat familiar; 48% not very familiar; and 38% replied that students/parents were not at all familiar. See Table 4.2 for comparison of these data between this year and last year.

TABLE 4.2 Principals' Responses to Estimated Percentage of Students and Parents Familiar with CAHSEE

Familiarity	2000	2001	
	Students/Parents	Students	Parents
Familiar—Very familiar (advanced knowledge)	2	31	18
Had general information	60	67	76
No familiarity	38	2	4

Preparation Thus Far

The Spring 2001 survey asked about preparation that has already been initiated. One precursor to a successful program is to align school curricula with the state content standards, to ensure that students are being taught what will be tested. Thus respondents were queried about alignment with state content standards. In short, most principals indicated that they are already moving in the direction of alignment, but still have a way to go. Ninety-one percent of principals reported that their districts/schools encourage use of the content standards to organize instruction; 56% said their schools are in the process of aligning their curricula to the standards; 36% are in the process of aligning their curricula across grades. Forty percent said that their schools/districts have plans to ensure that all high school students receive instruction in each of the content standards and 29% have plans to ensure that all pre-high school students are prepared to receive instruction in each of the content standards. Fifty-six percent stated that their textbooks align well with the content standards; 44% report that they can cover all the content standards with a mix of textbooks and supplemental material. In addition, sixty-two percent reported they have adopted algebra as a graduation requirement, and 29% indicated their district or school was hiring only teachers certified in their field or assigning teachers only in their certified field. Table 4.3 presents comparison data of responses given in 2000 and 2001 regarding preparations made to align curricula with state content standards.

TABLE 4.3 Principals' Reported Percentages of Preparations for Alignment with State Content Standards

Preparation	2000	2001
Districts/schools encourage the use of content standards	100	91
In process of aligning curricula with standards	81	56
Have plans to ensure all high school students receive instruction in each of the content standards	52	40
Textbooks align well with content standards	74	56
Cover all content standards with a mix of textbooks and supplemental materials	38	44

Principals were asked to compare their district standards and the state content standards. In regard to ELA, most principals (67%) responded that their districts have adopted the state standards, and 29% reported that their district standards include more than the state content

standards. Thus, a total of 96% indicated that their district standards encompass all state standards. However, 2% reported that the state standards include more than the district standards, and 2% indicated that their districts had no official standards. In regard to mathematics, most principals (71%) responded that their districts have adopted the state standards; another 22% reported that their district standards include more than the state content standards. Thus, a total of 93% indicated that their district standards encompass all state standards. However, 5% reported that the state standards include more than the district standards, and 2% indicated that their districts had no official standards. Table 4.4 presents comparison data on the similarity between district and state standards for year 2000 and 2001.

TABLE 4.4 Percentage of Principals Reporting Similarity between District and State Standards

Similarity between standards	2000	2001	
		ELA	Math
District adopted state standards	69	67	71
District standards include more than state standards	19	29	22
State standards include more than district standards	7	2	5
District has no official set of standards	0	2	2

Along similar lines, teachers were asked at what level their school's current curriculum covers the standards tested by CAHSEE. The majority of the teachers indicated that almost all of the standards are covered by their school's curriculum. Table 4.5 provides further information on this item. When teachers were asked what plans their school or district had to increase coverage of the state content standards, nearly half (50% of ELA and 43% of mathematics teachers) indicated they were aware of in-service training to modify instructional practices. Eighteen percent of ELA teachers and 28% of mathematics teachers indicated that there were no plans to increase coverage of the standards because the standards were already fully covered.

TABLE 4.5 Percentage of Teachers Indicating Coverage of Standards by Curriculum

Coverage of Standards	ELA	Mathematics
Almost all	60	57
About $\frac{3}{4}$	20	14
About $\frac{1}{4}$ - $\frac{1}{2}$	11	16
Less than $\frac{1}{4}$	6	5
No knowledge of standards	3	8

Respondents were asked how much time they personally spent during the 2000–2001 school year in activities related to the CAHSEE (e.g., meetings, discussions, curriculum review, professional development). Most principals reported spending 6–15 hours (36%) or 16–35 hours (30%). Nine percent reported fewer than 6 hours; 21%, more than 35 hours, and 4%, none. Most teachers reported fewer hours than principals: 5%, none; 39%, fewer than 6 hours; 31%, 6–15 hours; 19%, 16–35 hours; and 6%, more than 35 hours. Teachers were also asked to estimate the total 2000–2001 time they spent on classroom instruction preparation

activities related to the CAHSEE (e.g., department planning, lesson plan review). The amount of time reported for these activities was: 6%, none; 39%, fewer than 6 hours; 20%, 6–15 hours; 20%, 16–35 hours; and 15%, more than 35 hours.

Respondents were asked to identify the specific activities they have undertaken to prepare students for the spring 2001 administration of the CAHSEE. Most principals reported initiating some activities; only 7%, as compared to 17% last year, indicated that they have implemented none. Figure 4.1a indicates the percentage of principals who reported implementing each activity, in descending order of endorsement; Figure 4.1b indicates teachers' responses.

Principals were also asked to indicate the types of activities their school undertook to prepare faculty/staff for the spring 2001 administration of the CAHSEE. Seventy-one percent of principals indicated the administrators had participated in February test administration workshops, 58% delivered local workshops on test administration, 36% delivered local workshops on CAHSEE content, 42% provided test-taking strategies, and 7% indicated "other". Nine percent of all principals indicated there was no special preparation for the faculty/staff prior to the spring 2001 administration of the CAHSEE.

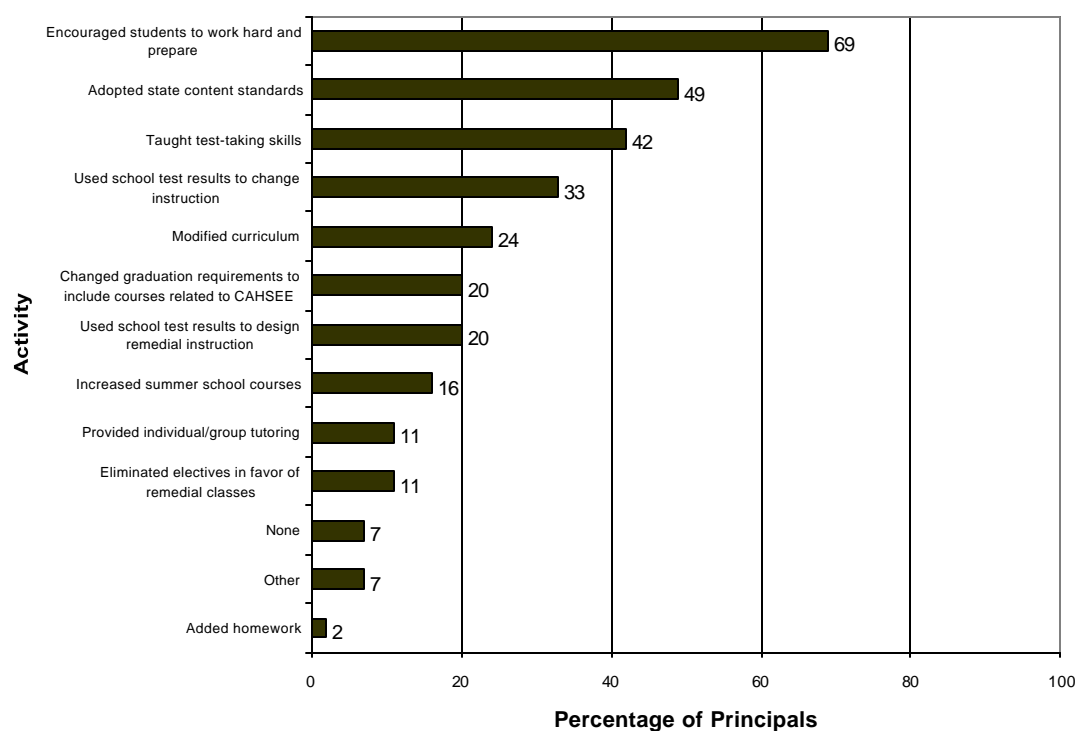


Figure 4.1a. Percentage of principals reporting activities undertaken in preparation for the spring 2001 administration of the CAHSEE.

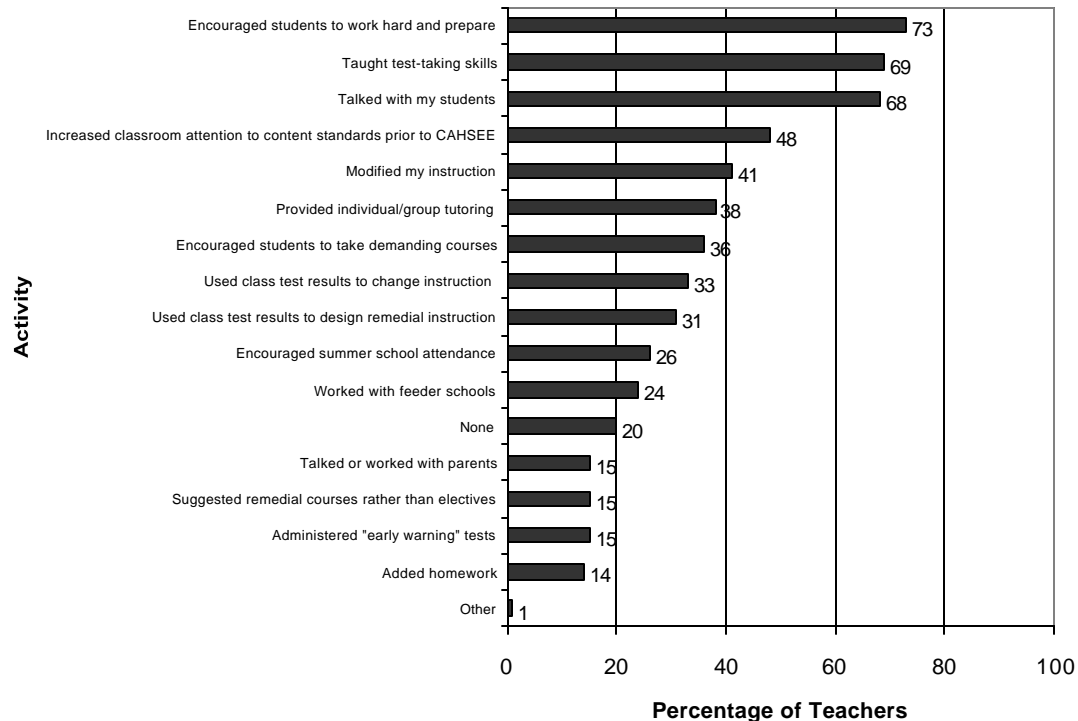


Figure 4.1b. Percentage of teachers reporting activities undertaken in preparation for the spring 2001 administration of the CAHSEE.

Future Plans

In addition to any preparatory steps taken thus far, the surveys inquired about future plans to deal with this new requirement. In particular, efforts to prepare teachers and others for the exam and remediation plans subsequent to the first exam administration were probed. Principals were provided a list of possible remedial practices for students who do not pass the CAHSEE and asked which they planned. Figure 4.2 lists the percentage of principals who endorsed each activity (in descending order of endorsement)

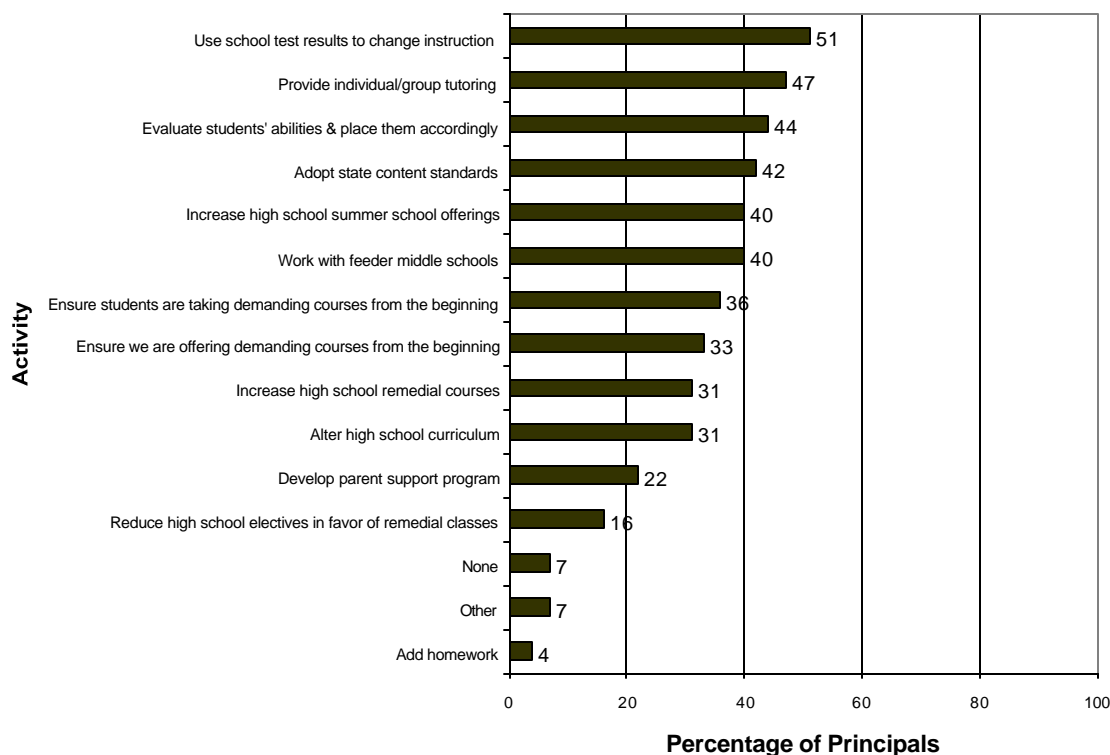


Figure 4.2. Percentage of principals reporting plans for remediation of students who do not pass the CAHSEE.

Expectations

Several survey questions queried the respondent's expectations for the exam: anticipated pass rates, impact of the exam on student motivation and parental involvement, and so on.

Principals were asked to estimate the percentage of students who would meet the ELA and mathematics standards assessed by the CAHSEE by the end of 10th grade. As Figure 4.3a indicates, responses were generally guarded. Regarding the ELA exam, 49% of principals predicted that fewer than 50% of students would pass; 29% predicted 50–74% of students would pass; 18% predicted 75–95% would pass; and 4% predicted that more than 95% of students would pass. Responses were similar with respect to the mathematics exam. Forty-seven percent of principals predicted that fewer than 50% of students would pass the mathematics exam; 36% predicted 50–74% of students would pass; 11% predicted 75–95% would pass; 4% predicted that more than 95% of students would pass; and 2% were unsure as to what percent of students would pass the mathematics exam. Teachers were asked the same questions; their results are presented in Figure 4.3b. Table 4.6 presents comparison data for the years 2000 and 2001 on estimated percentages of students meeting the CAHSEE standards. The predicted pass rates for ELA and mathematics were very similar to last year's predictions.

Teachers were also asked two variants of a similar question. They were asked to estimate the preparedness of students to pass the CAHSEE when they are in the 9th grade and the 10th grade, based upon the teacher's knowledge of the feeder schools. As Figure 4.4 indicates, 30% of teachers responded that students were prepared (or better) in the 9th grade; 67% indicated that students were prepared or better in the 10th grade. Comparative data is presented with this year's data in Table 4.7. Comparison of last year's and this year's data revealed only a slight increase in preparedness in 9th grade from 2000 to 2001 and a larger increase in preparedness in 10th grade.

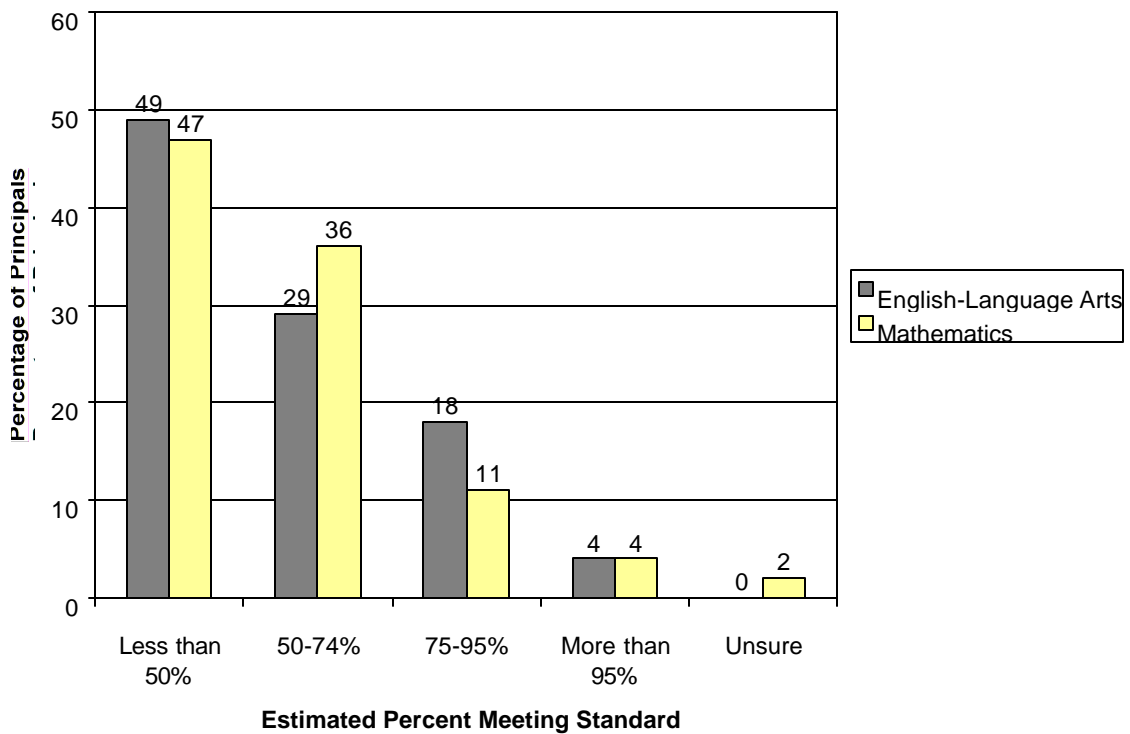


Figure 4.3a. Principals' predictions of percent of students meeting standards by the end of 10th grade.

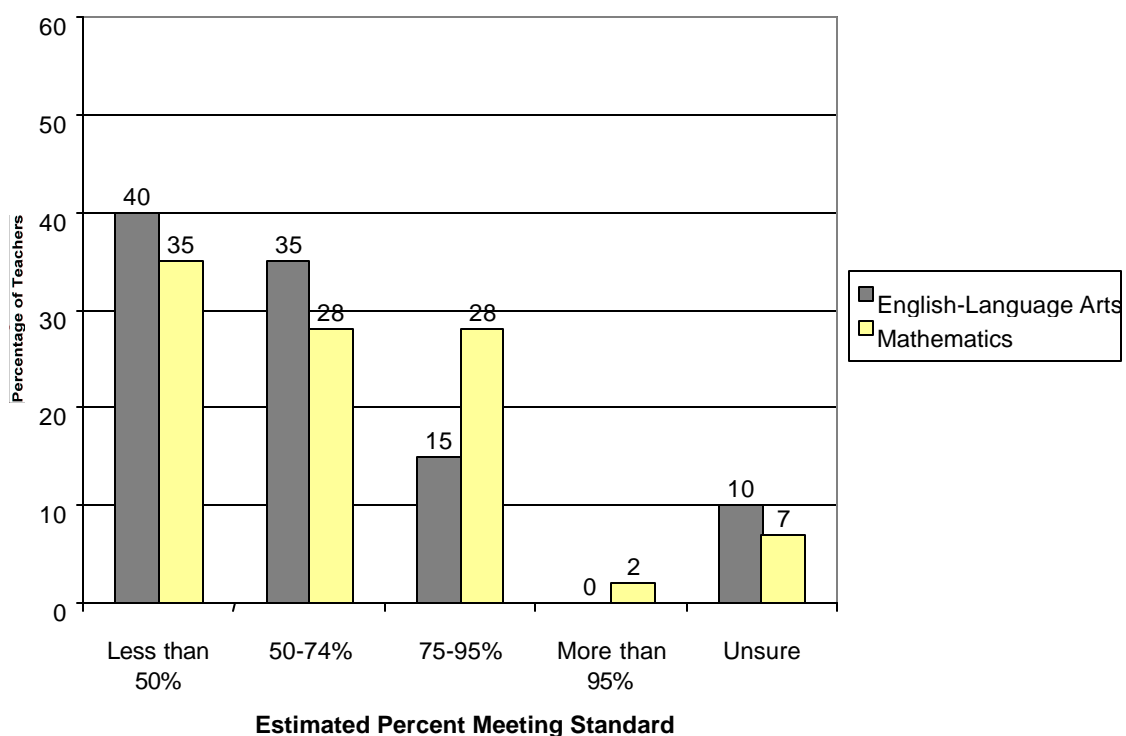


Figure 4.3b. Teachers' predictions of percent of students meeting standards by the end of 10th grade.

TABLE 4.6 Principals' and Teachers' Estimated Percentages of Students Meeting CAHSEE Standards

Percent Meeting Standard	Percentage of Principals			Percentage of Teachers	
	<u>2000</u>		<u>2001</u>	<u>2001</u>	
	ELA/Mathematics	ELA	Mathematics	ELA	Mathematics
< 50%	50	49	47	40	35
50 – 74%	29	29	36	35	28
75 – 95%	14	18	11	15	28
> 95%	5	4	4	0	2
Unsure	--	0	2	10	7

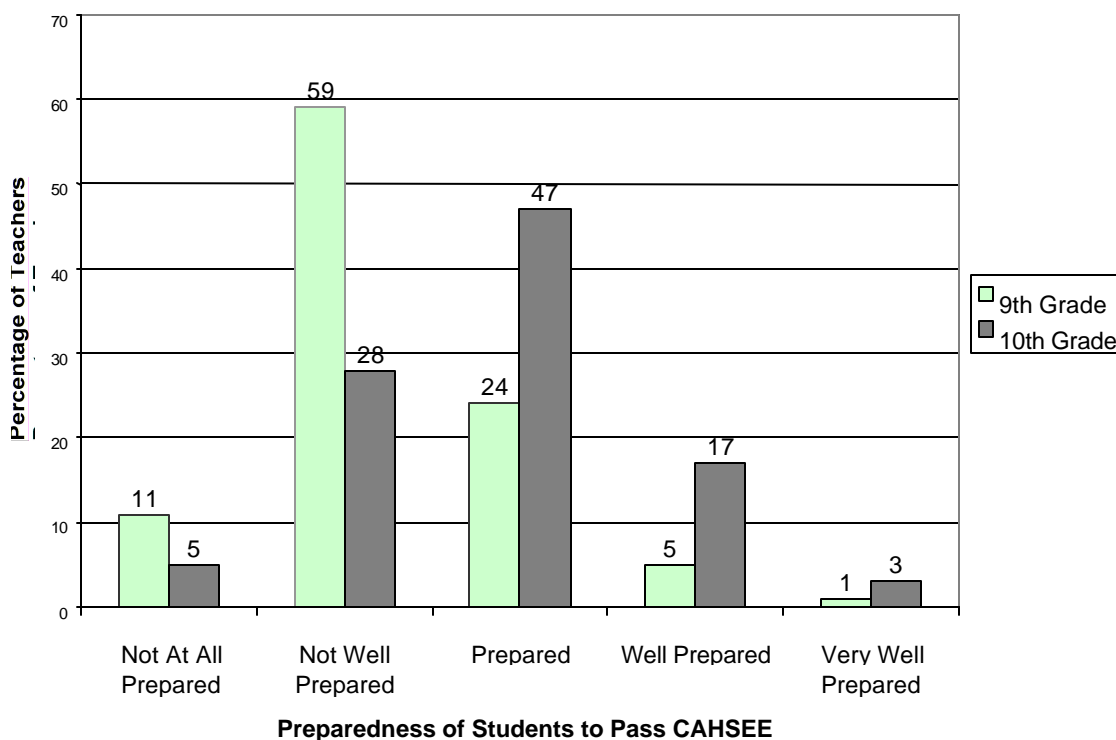


Figure 4.4. Teacher's estimates of preparedness of students to pass the CAHSEE in the 9th and 10th grades.

TABLE 4.7 Teachers' Ratings of Preparedness of Students in the 9th and 10th Grades (in percentages)

Preparedness	9 th Grade		10 th Grade	
	2000	2001	2000	2001
Very well prepared	1	1	1	3
Well prepared	2	5	9	17
Prepared	16	24	30	47
Not well prepared	52	59	47	28
Not at all prepared	19	11	5	5

Principals and teachers were also asked to predict the impact of the CAHSEE on student motivation and parental involvement, under various circumstances. Figures 4.5a and 4.5b reflect the impact anticipated prior to the first administration of the exam. Principals predicted a wider range of impact on student motivation than on parental involvement. Some negative impact on student motivation was predicted prior to the exam, but largely neutral or positive effects were posited for parental involvement prior to the first administration. Comparison of Figures 4.5a and 4.5b indicate that teachers' and principals' predicted impact of the CAHSEE on student motivation and parental involvement prior to the first administration are similar.

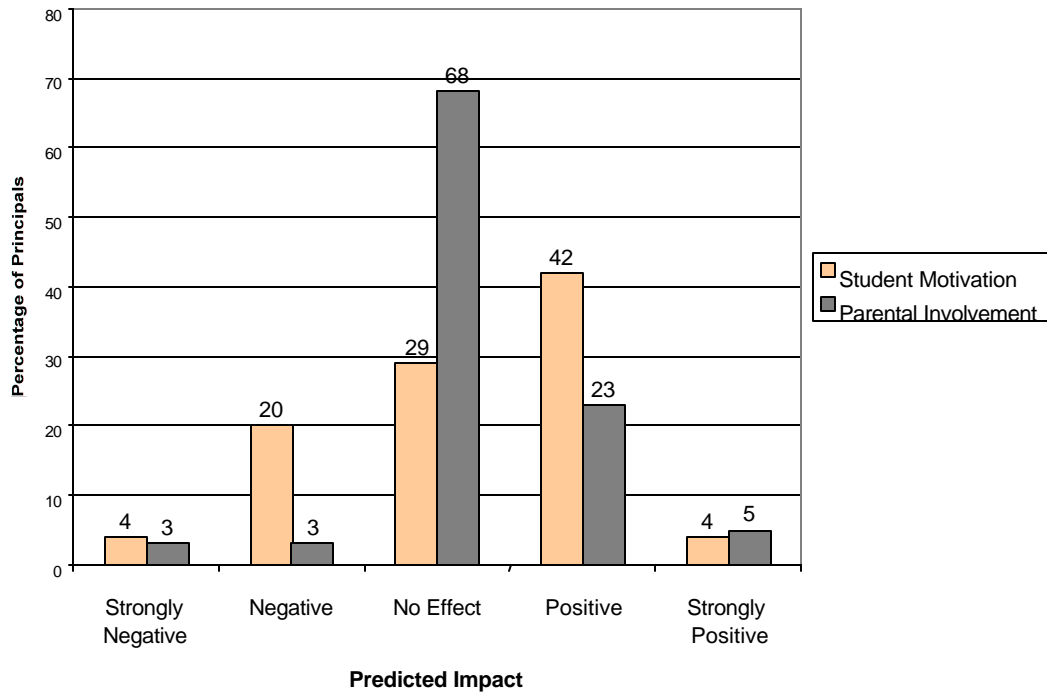


Figure 4.5a. Principals' predicted impact of the CAHSEE on student motivation and parental involvement of students prior to the first administration.

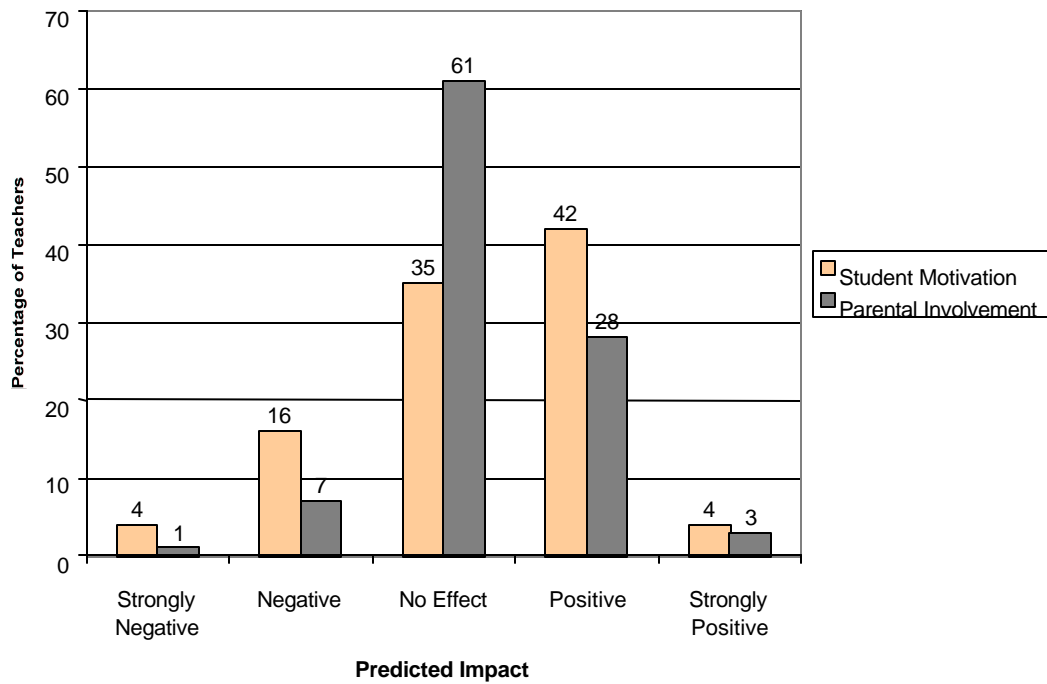


Figure 4.5b. Teachers' predicted impact of the CAHSEE on student motivation and parental involvement of students prior to the first administration.

Principals and teachers were asked to predict the same two concepts—student motivation and parental involvement—for those students who pass the exam on their first attempt. The predictions for this group were more positive. As Figure 4.6a depicts, 11% of principals expected that student motivation would drop after students cleared the hurdle of the CAHSEE; 32% of principals predicted that student motivation would be unaffected by passing the exam; and 57% predicted a positive or strongly positive effect. Fifty-six percent of principals expected no impact on parental involvement; 37% predicted a positive effect, 5% predicted a strongly positive impact, and 2% a strongly negative impact on parental involvement for those students who pass the exam early in their high school careers.

Here again, teachers' predicted impact was similar to the predictions reported by principals. Figure 4.6b indicates that 5% of teachers expected a negative or strongly negative impact on student motivation after passing the exam on the first attempt; 39% predicted that student motivation would be unaffected by passing the exam; and 54% predicted a positive or strongly positive effect. Over half of teachers (64%) expected no impact on parental involvement; 0% predicted a negative or strongly negative effect, 32% predicted a positive effect and 4% predicted a strongly positive impact on parental involvement for those students who pass the exam early in their high school careers.

For those students who fail the exam on the first try, the principals' and teachers' predictions were quite different from pre-examination predictions. Figures 4.7a and 4.7b illustrate response patterns for principals and teachers, respectively. Principals were split on whether the impact of failing the exam would have a negative effect on student motivation; 11% predicted a strongly negative effect; 34%, negative; 18%, no effect, 34%, positive, and 2% strongly positive. Predictions for parental involvement were very similar to those of student motivation: 9% predicted a strongly negative effect; 30%, negative; 16%, no effect; 42%, positive; and 2%, strongly positive. There was a similar pattern for teacher responses: regarding student motivation, 8% predicted a strongly negative effect; 28%, negative; 23%, no effect, 37%, positive; and 4%, strongly positive. As for parental involvement, 7% of teachers predicted a strongly negative effect; 19%, negative; 32%, no effect; 38%, positive; and 4%, strongly positive.

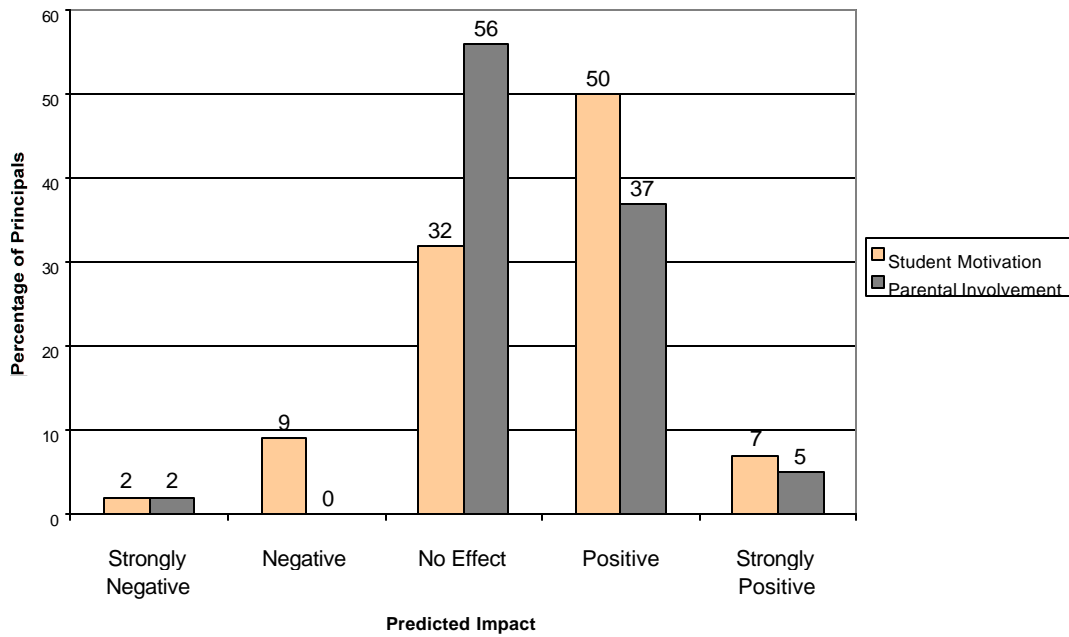


Figure 4.6a. Principals' predicted impact of the CAHSEE on student motivation and parental involvement of students who pass the exam on the first attempt

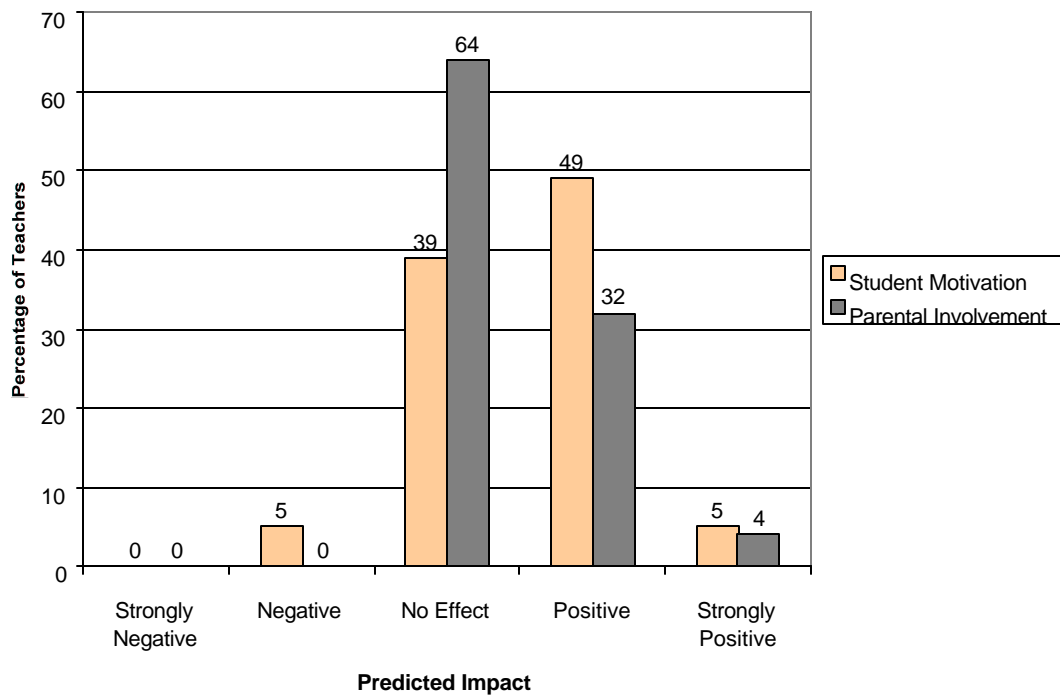


Figure 4.6b. Teachers' predicted impact of the CAHSEE on student motivation and parental involvement of students who pass the exam on the first attempt.

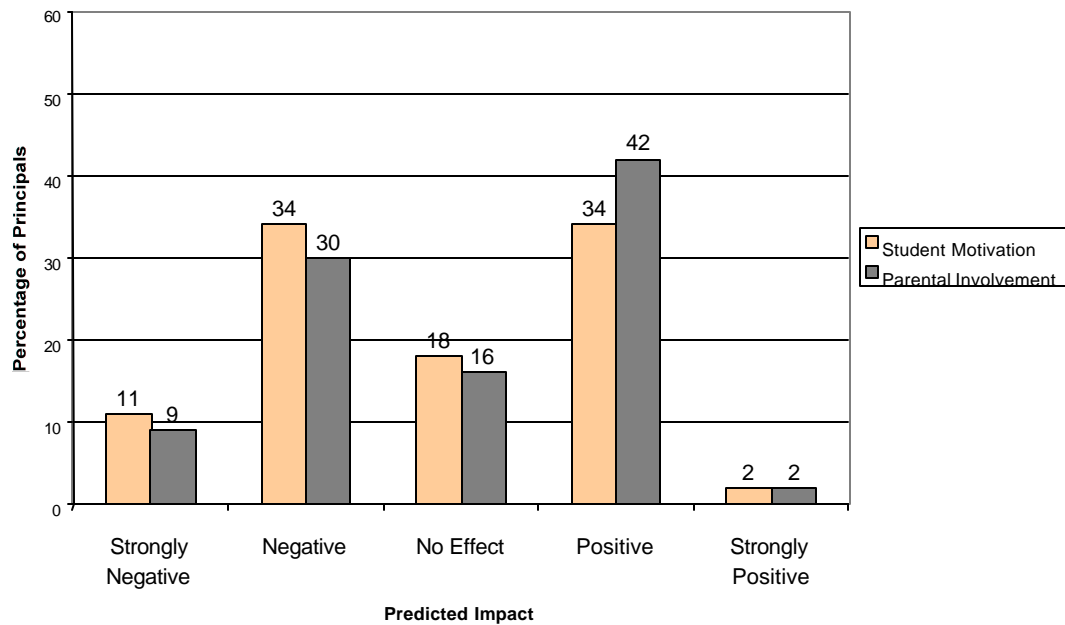


Figure 4.7a. Principals' predicted impact of the CAHSEE on student motivation and parental involvement of students who fail the exam on the first attempt.

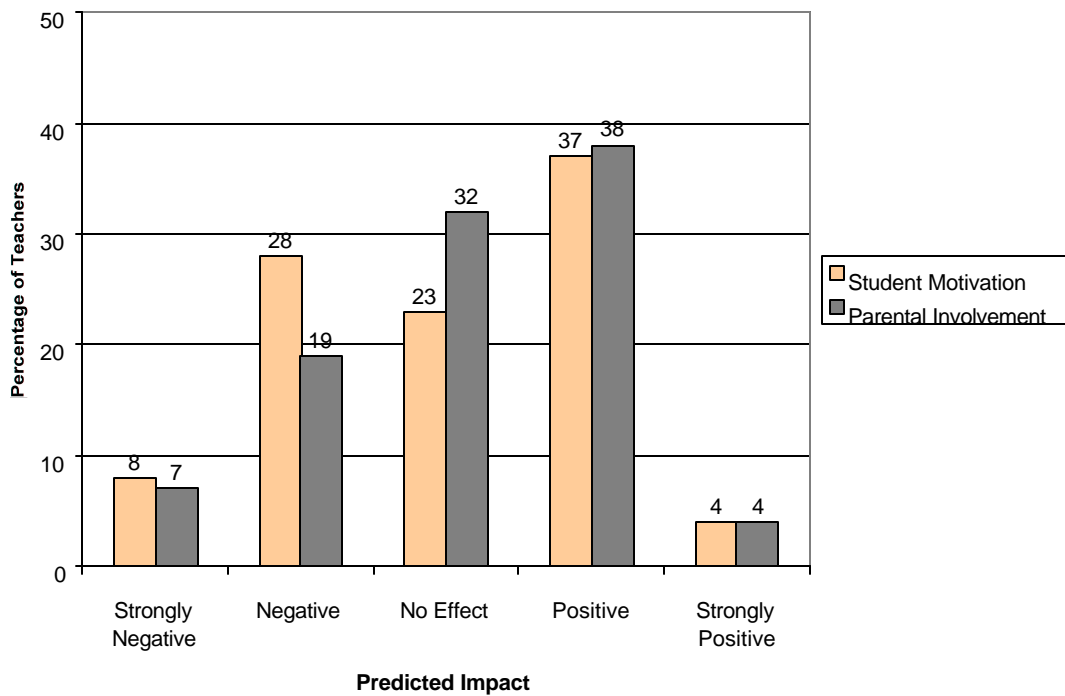


Figure 4.7b. Teachers' predicted impact of the CAHSEE on student motivation and parental involvement of students who fail the exam on the first attempt.

Comparisons from 2000 and 2001 of principals' predicted impact of CAHSEE on student motivation and parental involvement under various circumstances are presented in Table 4.8. The predicted impact was similar across the 2 years of data collection although slightly more positive impact was predicted prior to the first administration this year. The same comparisons for teachers' predictions of the impact of CAHSEE on student motivation and parental involvement are presented in Table 4.9. Teachers' predictions of the impact of CAHSEE were slightly more positive this year.

Principals and teachers were also asked to predict the impact of the CAHSEE on student retention and dropout rates. Responses were somewhat negative overall. Figures 4.8a and 4.8b reveal that principals' predictions were more negative than teachers'. Fifty-five percent of principals (vs. 32% of teachers) anticipated a strongly negative or negative impact on student retention rates; 80% of principals (vs. 61% of teachers) predicted a strongly negative or negative impact on student dropout rates. Thirty-six percent of principals (vs. 53% of teachers) predicted no effect on student retention and 7% of principals (vs. 26% of teachers) predicted no effect on student dropouts. Nine percent of principals (vs. 15% of teachers) anticipated a positive or strongly positive effect on student retention rate and 14% of principals (vs. 12% of teachers) expected a positive or strongly positive effect on student dropout rate.

TABLE 4.8 Principals' Predicted Impact of CAHSEE on Student Motivation and Parental Involvement (in percentages)

Impact	Student Motivation		Parental Involvement	
	2000	2001	2000	2001
Impact prior to first administration				
Strongly positive	2	4	0	5
Positive	45	42	31	23
No effect	19	29	55	68
Negative	17	20	7	3
Strongly negative	17	4	5	3
Impact for students who pass exam on first attempt				
Strongly positive	12	7	12	5
Positive	50	50	33	37
No effect	33	32	50	56
Negative	5	9	2	0
Strongly negative	0	2	2	2
Impact for students who fail exam on first attempt				
Strongly positive	2	2	2	2
Positive	33	34	41	42
No effect	17	18	14	16
Negative	36	34	36	30
Strongly negative	10	11	7	9

TABLE 4.9 Teachers' Predicted Impact of CAHSEE on Student Motivation and Parental Involvement (in percentages)

Impact	Student Motivation		Parental Involvement	
	2000	2001	2000	2001
Impact prior to first administration				
Strongly positive	3	4	3	3
Positive	23	42	21	28
No effect	26	35	48	61
Negative	32	16	13	7
Strongly negative	7	4	5	1
Impact for students who pass exam on first attempt				
Strongly positive	11	5	6	4
Positive	28	49	29	32
No effect	38	39	49	64
Negative	11	5	4	0
Strongly negative	3	0	4	0
Impact for students who fail exam on first attempt				
Strongly positive	4	4	2	4
Positive	33	37	32	38
No effect	16	23	28	32
Negative	30	28	21	19
Strongly negative	7	8	6	7

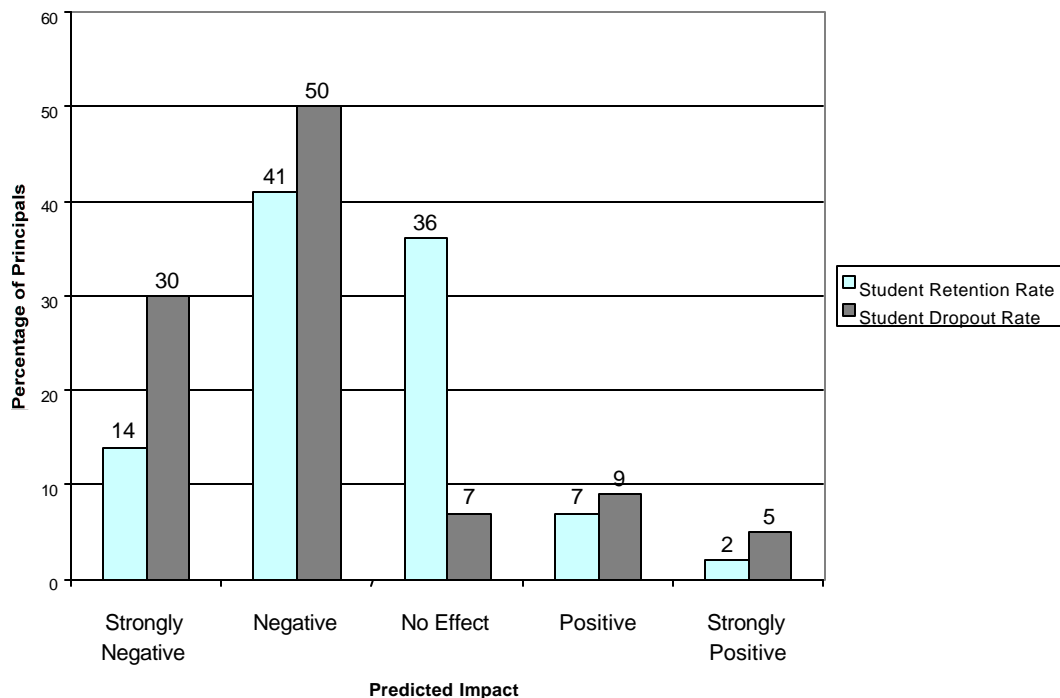


Figure 4.8a. Principals' predicted impact of the CAHSEE on student retention and dropout rates.

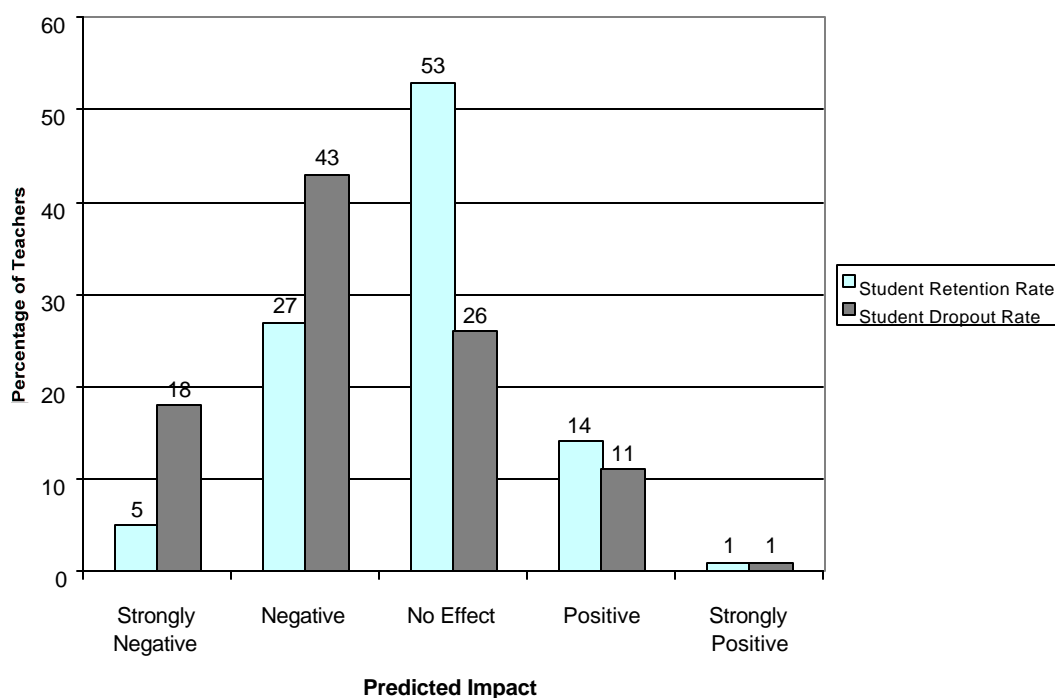


Figure 4.8b. Teachers' predicted impact of the CAHSEE on student retention and dropout rates.

The comparison of the predictions by principals and teachers of the CAHSEE on student retention and dropout rates from this year to last year is presented in Table 4.10. Results were similar between years, although principals' predictions of the impact on student dropout rates were slightly more negative this year.

TABLE 4.10 Principals' and Teachers' Predicted Impact of CAHSEE on Student Retention and Dropout Rates

Impact	Principals			
	Student Retention		Student Dropout	
	2000	2001	2000	2001
Strongly positive	2	2	2	5
Positive	14	7	12	9
No effect	29	36	21	7
Negative	41	41	41	50
Strongly negative	14	14	24	30
	Teachers			
	0	1	1	1
	11	14	9	11
	20	53	20	26
	44	27	44	43
Strongly negative	12	5	14	18

Principals were asked to predict, based on what they knew about their schools, the influence of the CAHSEE on classroom instructional practices over time. Figure 4.9a provides the predictions for school years 2001–2002, 2003–2004, and 2005–2006. Responses to the influence of CAHSEE for next year (2001–2002) ranged from moderately optimistic to neutral: 70% responded that practices would be improved, 28% predicted no effect, and 2% said considerably improved. Responses regarding the influence of CAHSEE in 3 years (2003–2004) were optimistic: 70% responded that practices would be improved, 28% considerably improved, and 2% predicted no effect. Responses regarding the influence of CAHSEE in 5 years (2005–2006) were also very optimistic: 51% responded that practices would be improved, 44% considerably improved, and 5% predicted no effect. No principals chose the options of weakened or considerably weakened.

Teachers were asked the same question about the influence of the CAHSEE on instructional practices for the 3 school years. Figure 4.9b provides the responses for all 3 years. The pattern of responses indicates that teachers expect the CAHSEE to have a positive impact on instruction, and they generally expected that impact to grow increasingly positive over time. A comparison of teachers' responses to this question last year and this year is presented in Table 4.11. Responses were similar in 2000 and 2001.

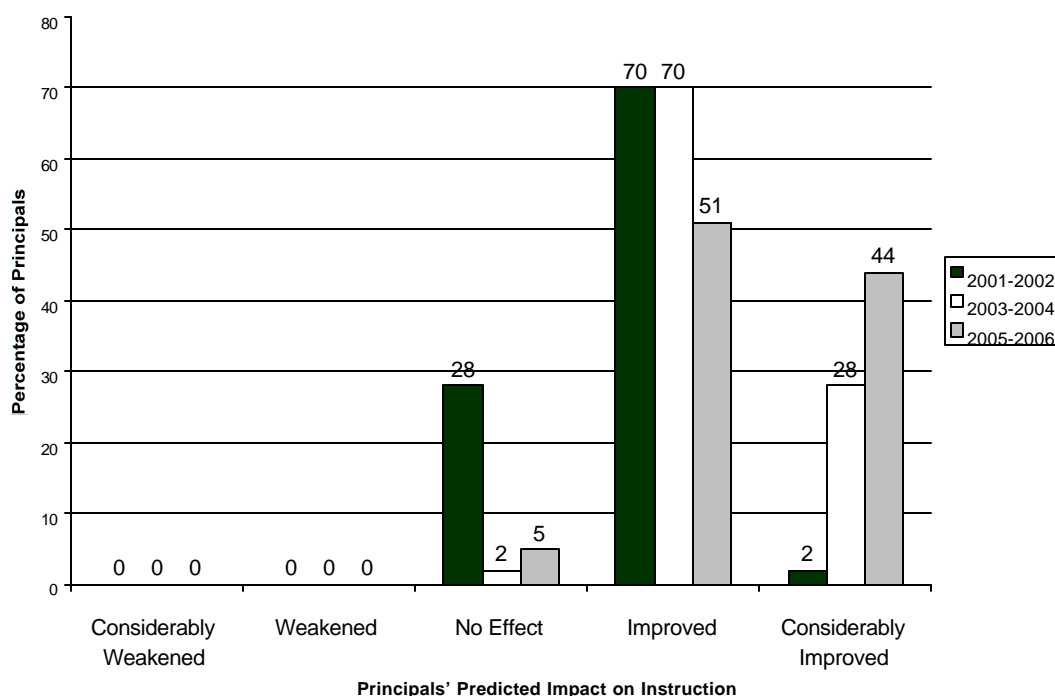


Figure 4.9a. Principals' prediction of influence of the CAHSEE on instructional practices over time.

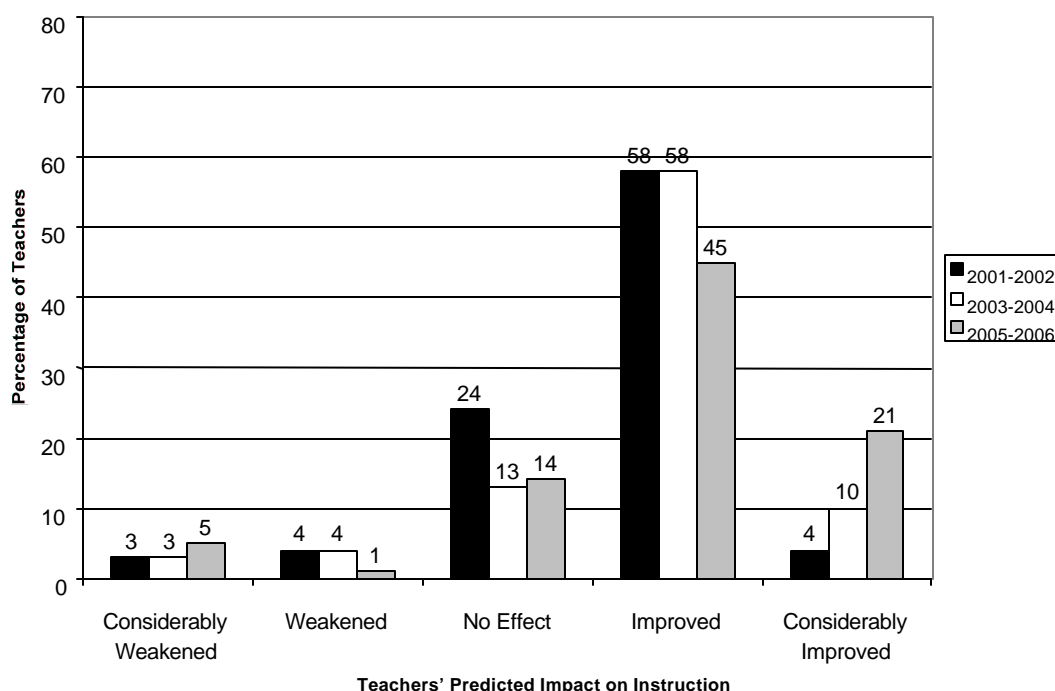


Figure 4.9b. Teachers' prediction of influence of the CAHSEE on instructional practices over time.

TABLE 4.11 Teachers' Predictions of Influence of CAHSEE on Instructional Practices Over Time (Percentages)

Effect	2000			2001		
	2000-2001	2002-2003	2004-2005	2001-2002	2003-2004	2005-2006
Considerably Improved	4	13	23	4	10	21
Improved	38	60	50	58	58	45
No effect	46	14	14	24	13	14
Weakened	2	5	4	4	4	1
Considerably Weakened	1	1	1	3	3	5

One of the concerns when implementing a new exam is whether there is a differential impact on various subgroup populations. We asked principals to estimate the percent of 10th grade students who have had instruction in the ELA and mathematics standards for the total student population, as well as for specific subgroups: students with disabilities, EL students, economically disadvantaged students, and minority students. Figures 4.10a and 4.10b present the results for ELA and mathematics, respectively. For the various student subgroups, responses were less optimistic, especially for the more than 50% who are estimated not to have had instruction in the content standards.

Comparisons between last year's data on opportunity to learn and this year's data on instruction are presented in Table 4.12, by student groups. Generally, the percent of principals indicating that fewer than 50% of a student group had instruction in the content standards increased from the estimates made in 2000 by teachers. There is some question of the comparability of 1) the difference in categories utilized in 2000 and 2001, and 2) teacher (2000) vs. principal (2001) ratings of the students in the various subgroup populations.

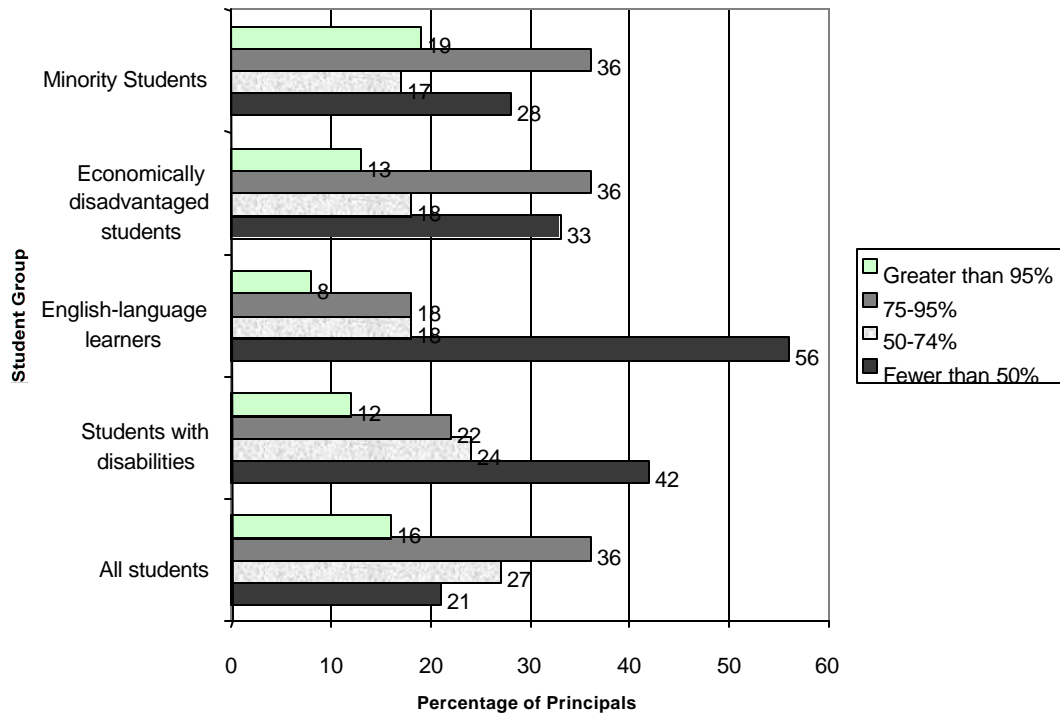


Figure 4.10a. Principals' estimates of the percentage of students who have had instruction in ELA content standards.

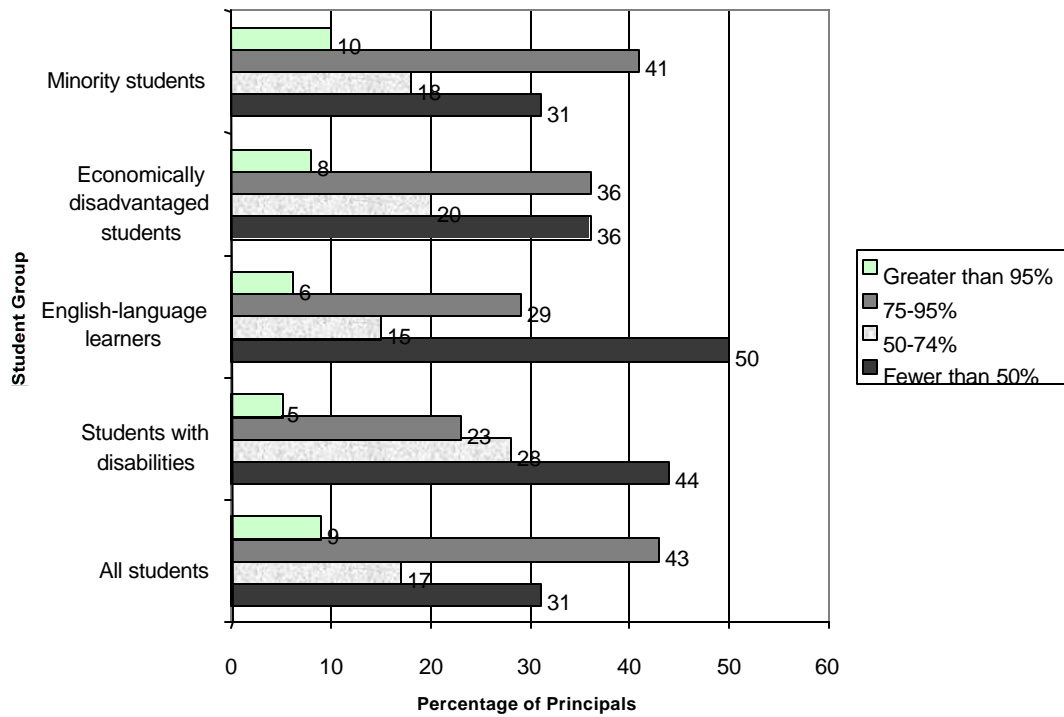


Figure 4.10b. Principals' estimates of the percentage of students who have had instruction in Mathematics content standards.

TABLE 4.12 Teachers' (2000) and Principals' (2001) Estimates of the Percentage of Students with Instruction in ELA and Mathematics Content Standards (in percentages)

Student Group	2000	2001	
	ELA/Mathematics	ELA	Mathematics
Economically disadvantaged students			
Greater than 95 %	10	13	8
75 - 95 %	22	36	36
50 - 74 %	22	18	20
Fewer than 50 %	23	33	36
Not Sure	10	--	--
English learners in targeted subject areas			
Greater than 95 %	5	--	--
75 - 95 %	17	--	--
50 - 74 %	24	--	--
Fewer than 50 %	28	--	--
Not Sure	12	--	--
English learners			
Greater than 95 %	6	8	6
75 - 95 %	18	18	29
50 - 74 %	19	18	15
Fewer than 50 %	31	56	50
Not Sure	14	--	--
Minority students			
Greater than 95 %	--	19	10
75 - 95 %	--	36	41
50 - 74 %	--	17	18
Fewer than 50 %	--	28	31
Students with disabilities			
Greater than 95 %	6	12	5
75 - 95 %	20	22	23
50 - 74 %	22	24	28
Fewer than 50 %	24	42	44
Not Sure	16	--	--
All students			
Greater than 95 %	10	16	9
75 - 95 %	26	36	43
50 - 74 %	25	27	17
Fewer than 50 %	19	21	31
Not Sure	9	--	--

Standards Taught

For the mathematics standards included in our survey, most of the teachers responding said that these standards were covered in Beginning Algebra, Intermediate Algebra, and Plane Geometry. For Beginning Algebra, just over half of the respondents said that the course was taken by most students. Where an integrated math course was offered, 72% of respondents indicated that most students took the first level of this course. For all other courses, fewer than half of the respondents indicated that most students took the course. Appendix A includes tables that show the specific courses listed for each of the content

standards included in our survey. For the most frequently mentioned courses, the percent of time the respondent indicated that the standard was fully taught in the course is also tabled.

A table showing the frequency with which specific ELA courses were mentioned as covering one or more of the ELA standards included in our survey can be found in Appendix A. Comprehensive English for grades 9 and 10 and American literature were mentioned by more than three-fourths of the respondents. Roughly two-thirds of the time, respondents indicated that most students in their school take these courses.

In general, for both mathematics and ELA, very few respondents indicated that the more difficult standards included in our survey were not taught. In many cases, however, they indicated courses that are typically not taken until 10th grade or later.⁵ Further, particularly for mathematics, respondents frequently indicated that only some of their students took the courses in which the standards were covered.

Other

Principals were asked to rate the likelihood that specific factors would affect their students' success in meeting the requirements of CAHSEE. The results are presented in Table 4.13. Factors for which the majority of principals indicated "definitely a factor" included poor attendance and too many tests to prepare for. Lack of preparation needed to pass and lack of motivation were endorsed as "definitely a factor" by almost half of the principals.

TABLE 4.13 Percentage of Principals Indicating Factors for Students' Success on CAHSEE

Factor	Not a Factor	Possibly a Factor	Definitely a Factor
Lack of preparation needed to pass	9	43	48
Lack of motivation	6	47	47
Poor attendance	9	24	67
Too many tests to prepare for	14	33	53
Language barriers	19	42	39
District's current level of standards in English or writing	34	52	14
District's current level of standards in math or algebra	34	52	14

Principals were asked to indicate what actions the school plans to take or has implemented to promote learning for all students. The results are presented in Table 4.14. Principals' responses indicate that while many actions have already been undertaken to promote student learning, in many cases these actions have been only partially implemented.

Principals were asked what percentage of their teachers they thought understand the difference between "teaching to the test" and "aligning the curriculum and instruction to the standards". Sixteen percent indicated greater than 95%, 37% indicated 75–95%, 26%

⁵ This should be kept in mind when drawing inferences from the fact that many 9th graders have not mastered these standards. It may be the case that these students will be sufficiently prepared to pass the exam by spring of their 10th grade year.

indicated 50–74%, 16% indicated fewer than 50%, and 5% were unsure of what percentage of their teachers understood the difference between the two concepts. The results are displayed in Figure 4.11.

TABLE 4.14 Percentage of Principals Indicating Actions to Promote Student Learning

Action	Plan to Implement		Already Implemented (Stage)	
	No	Yes	Partially	Fully
School, teacher, and student access to appropriate instructional materials	0	9	37	54
Encouragement of all students to take Algebra I	0	16	28	56
Individual student assistance	0	12	61	27
Teacher and school support services	2	16	58	24
Student and parent support services	10	34	39	17
Teacher access to in-service training on content standards	0	12	38	50
Teacher access to in-service training on instructional techniques	2	14	37	47
Administrator and teacher access to in-service training for working with diverse student populations and different learning styles	2	23	42	33

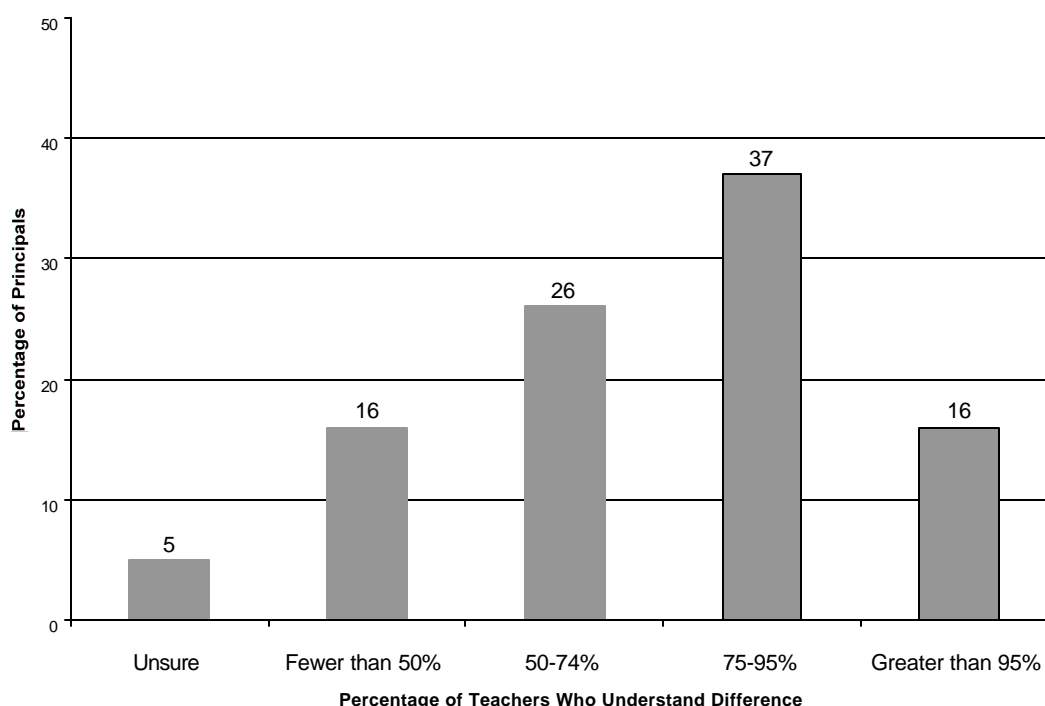


Figure 4.11. Percentage of principals indicating the percentage of teachers who understand the difference between “teaching to the test” and “aligning the curriculum and instruction to the standards.”

Summary

Principals and teachers reported significant familiarity with CAHSEE and the state content standards. While last year principals and teachers indicated they were more familiar with the state content standards than CAHSEE, this year they reported familiarity with CAHSEE to be greater than familiarity with the state content standards. Comparable to last year, principals rated themselves as more familiar with CAHSEE and the state content standards than teachers rated themselves. However, principals' ratings of student and parent familiarity with CAHSEE increased from last year.

Only a small percentage of teachers reported that they had no source of information on the CAHSEE. Most principals relied primarily upon official channels such as state and district sources and the California Department of Education Web site; teachers reported a greater reliance upon newspaper accounts than did principals.

Preparatory activities continue. For example, nearly all principals reported that districts encourage the use of content standards and approximately one-third indicated that their district has adopted the state content standards. The types of activities that were endorsed by approximately half of the principals in preparation for the spring 2001 administration of CAHSEE included encouraging students to work hard to prepare for the test, and adoption by their schools of the state content standards. Teachers' preparations included encouraging students to work hard and prepare, teaching test-taking skills, talking with their students, and increasing classroom attention to content standards prior to CAHSEE.

In addition to adopting the state content standards in preparation for the CAHSEE, most principals reported emphasizing the importance of preparing staff through such efforts as having administrators participate in the February test administration workshops and delivering local workshops on test administration. Nearly half of the teachers were aware of in-service training to modify instructional practices to increase coverage of the content standards.

Teacher and principal estimates of student preparedness were mildly pessimistic. Estimates of the percentages of students likely to meet the CAHSEE standards were very similar this year and last year. However, comparison of 2000 and 2001 responses revealed a slight increase in the estimated preparedness level of students in 9th grade from 2000 to 2001 and a larger increase in the estimated preparedness level of students in 10th grade.

Teachers and principals were again in basic agreement about the impact of the test in various situations. For both years of data collection, principals predicted CAHSEE would have a neutral to mildly positive impact on student motivation and parental involvement. Principals had predicted slightly more positive impact for students and parents prior to the first administration than they did upon receiving pass/fail results from the first attempt. Teachers' predicted impact of CAHSEE on student motivation and parental involvement was slightly more positive this year. For those students who fail on the first attempt, however, expectations are different and less positive. Further, relatively few principals predicted that failure would have a neutral effect on student motivation, and again two camps emerged: Nearly the same number of principals expected a negative or strongly negative impact as predicted a positive impact. Principals and teachers remained very consistent in their

prediction that the effects of the CAHSEE upon student retention rates and student dropout rates will be negative. The comparison of principals' and teachers' predicted impact of the CAHSEE on student retention and dropout rates across 2000 and 2001 indicated generally similar results, although principals' predictions of the impact on student dropout rates had grown slightly more negative this year.

Despite these concerns about the effects on student motivation and parental involvement, principals and teachers continued to expect that the impact of the CAHSEE on instructional practices would be positive. Further, we asked teachers to estimate effects next year and in 3 and 5 years; they predicted greater improvement with time.

Respondents continued to expect differential impacts for certain student subgroups. They estimated that a much lower percentage of EL and students with disabilities, as compared to all students, would receive instruction in the content standards. Fewer respondents believed that such great differences would be seen with minority and economically disadvantaged students.

With regard to the teaching of the state content standards, very few teachers indicated that the more difficult standards included in our survey were not taught. In many cases, however, they indicated standards were taught in courses that are typically not taken until 10th grade or later. Further, particularly for mathematics, respondents frequently indicated that only some of their students took the courses in which the standards were covered.

In short, the principals and teacher survey responses indicate:

- Increased awareness of CAHSEE and the state content standards from last year
- Concerns about student preparedness
- Mixed predictions about the impact of the exam on student motivation
- Concern about the impact of the exam on retention rates and dropout rates
- Concern about the success of disadvantaged groups, especially EL students and students with disabilities
- Positive expectations of the impact of the CAHSEE on instructional practices
- Indication that the more difficult standards are taught in most schools, some of the courses are not typically taken until the 10th grade or later, and not by all students

CHAPTER 5: FINDINGS AND RECOMMENDATIONS

General Findings

The main questions for our evaluation, as specified in the enabling legislation and in our contract with the California Department of Education (CDE), concern the impact of the new graduation requirement on students. Specifically, we were asked to look at changes in graduation and drop-out rates and in other important student outcomes, such as college attendance rates for all students and for specified subpopulations of students. It will be at least another year, however, before we can begin to report information relevant to these outcomes. At that time students who have completed the curriculum through the 10th grade will have taken the test and received their results.

To this point, we have focused on the development of the exam and on what schools and districts are doing in anticipation of the new requirement. In our earlier reports, we expressed concern with the time line for implementing the new graduation requirement. Our concern was based on two key questions:

- (1) Would the exam be ready for the students?
- (2) Would students be ready for the exam?

The first question was asked with regard to the risk of problems in the assembling and printing of test forms, with the administration of the test, and with the reporting of results. Based on evaluation activities to date, we offer the following general findings:

General Finding 1: Progress in developing the exam has been noteworthy. We found no significant problems with the exam administered in March 2001 or with plans to report results from that administration.

Given low initial passing rates, there may be a tendency to question the validity of the exam. Our analyses of data from the March 2001 administration, however, showed that all test questions performed as expected. The operational test forms were printed correctly and on time and delivered to districts with few difficulties. Administration of the exam presented a number of significant challenges to schools in finding times and spaces in which to schedule students to take the exam. Even though the March administration was not a practice test, as it appeared for awhile it that might be, it provided a good opportunity to identify logistical and administrative issues to be addressed further in future administrations. The 2002 administrations will be the first time students who have completed much of the 10th grade curriculum will take the exam. Lessons learned from the 2001 administrations should be helpful in improving the process for 2002.

General Finding 2: The process used to establish minimum passing scores was well designed and executed and the resulting passing standards appear reasonable.

There was some concern that the passing scores for the two exams could not be set until data from a census testing of 10th graders were available. With the failure of the urgency

legislation (SB 84), the State Board of Education (SBE) was required to set minimum passing scores without normative information on 10th graders. Many experts disagree with the use of normative information and, where it is used, it rarely has much impact on the recommendations of the standard-setting process. CDE and American Institutes for Research (AIR) used a systematic process for identifying panels of teachers and others who were very familiar with California standards and students and were broadly representative of the state. The SBE appropriately considered the passing standards as provisional, recognizing a concern that results for students completing the 10th grade curriculum are not yet available.

Taken together, the conclusion of the first two general findings is that, to date, risks associated with an aggressive schedule for test development have not resulted in significant errors in the development and implementation of the CAHSEE. At present, the pool of test questions that have been reviewed and field tested is sufficient to support the development of test forms for the 2002 administration. There have, however, been difficulties in awarding a contract for continued development of the CAHSEE. Until these difficulties are resolved, the question of whether the exam will be ready for the students remains open.

More significant attention continues to be focused on our second question, whether students will be ready for the exam. Our general finding with respect to this question is:

General Finding 3: Progress on providing all students adequate opportunity to learn the material covered by CAHSEE has been good, but it is too soon to tell whether there will be significant problems in preparing students in the Class of 2004 to pass the exam.

Since our earlier reports expressed concern as to whether all schools could provide the Class of 2004 adequate opportunity to master the standards tested by CAHSEE, a number of changes have occurred:

1. Beginning with the Class of 2004, algebra will be a statewide requirement for high school graduation.
2. Survey results indicate that schools are taking the content standards seriously and have progressed in plans to provide students opportunities to learn these standards.
3. Principals and teachers report that students and parents have a greater awareness of CAHSEE than they did a year ago.
4. SBE plans are in place for adoption of K-8 textbooks aligned to the content standards and to incorporate results of standards-based tests into the Academic Performance Index (API).
5. CDE has launched a campaign for disseminating information about the CAHSEE and the content standards that it covers to districts and schools.

The fact that significant numbers of 9th graders have not yet mastered the standards covered by CAHSEE is not surprising. Results from our Spring 2001 survey suggest that

many of the standards are covered by courses most students do not take until the 10th grade. Members of the standard-setting panels were generally optimistic about schools' capacity for bringing students up to standard. Results from the 2002 administration of the CAHSEE to 10th graders will begin to tell us whether this optimism is justified.

Based on information available to date, as summarized in our three general findings, we offer two main recommendations at this time. The first is:

General Recommendation 1: Stay the course. The legislature and Board should continue to require students in the Class of 2004 to pass the exam, but monitor schools' progress in helping most or all of their students to master the required standards.

Notwithstanding earlier recommendations, we think it best not to alter the current schedule for implementing the CAHSEE requirements at this time. As expected, initial passing rates are low, indicating that many 9th grade students have not yet had the opportunity to learn the material covered by the CAHSEE. Continuing with the current requirement means demanding that schools, teachers, and even parents not give up on the Class of 2004 just because their education to this point may not have been as comprehensive as we would like it to be. Most educators with whom we have spoken are optimistic regarding the potential for most students to master the required content standards given more years of instruction and targeted assistance. Schools and districts have expended considerable effort in improving the curriculum to increase coverage of the state content standards, particularly those covered by CAHSEE. A decision to delay the requirement at this point could be seen as undercutting these efforts.

While we think the state should continue to move ahead, we continue to have concerns, as expressed in our earlier reports, as to whether all students in the Class of 2004 will have adequate opportunity to learn the material covered by the CAHSEE by the time they complete the 12th grade. A new bill (AB-1609) calls for further investigation of the extent to which schools are providing sufficient opportunity to learn the material covered by the CAHSEE. If passed, the bill would require a recommendation by 2003 as to whether the requirement to pass the exam should be delayed. There is not, however, a clear consensus as to what constitutes adequate opportunity to learn. Many would argue that analysis of the current curriculum is insufficient. The quality of instruction, as defined by teacher qualification and effectiveness, is also an issue. Further, the quality of the curriculum and instruction with which prerequisite skills were taught in earlier grades is also an issue. While we strongly support research on opportunities to learn the material covered by the CAHSEE, we are concerned that such research will not result in the conclusive evidence needed to support a decision on continuing the CAHSEE requirement for the Class of 2004.

We suggest that *the best evidence that a school system is providing its students adequate opportunity to learn the required material is whether most students do, in fact, learn the material*. Our evaluation will continue to monitor passing rates by school as an indicator of the extent to which students in these schools have had effective opportunities to learn the required knowledge and skills. Schools where most students pass the CAHSEE will have demonstrated their ability to provide sufficient opportunity to learn the required material.

Where significant numbers of students cannot pass, issues of opportunities to learn the required material will remain. A critical factor will be whether schools with the most difficult challenges, as evidenced by initial passing rates, will be given the guidance and resources needed to bring their students up to required levels. The Board may wish to adopt school-level standards for CAHSEE passing rates, such as 80 percent passing by the 10th grade or 90 percent passing by the 11th grade, and then work closely with districts and schools in jeopardy of failing such standards.

Whether the requirement is deferred or not, it will be very important to give the CAHSEE time to work. The history of state assessment programs shows a lack of stability over any prolonged period of time. For students to achieve the skills embedded in California's content standards, a sustained effort over an extended period of time will be required. We must "stay the course" to allow this to happen.

Passing rates by school will provide an important indicator of whether students, in general, have adequate opportunity to learn the material on which they are tested. We continue to be particularly concerned, however, with students who face the most difficult challenges. Based on this concern, we offer a second general recommendation:

General Recommendation 2: The legislature and Board should continue to consider options for students with disabilities and English learners.

There is significant tension between the desire to have high expectations for all students, including students with disabilities and English learners, and the need to be realistic about what some students can accomplish. Initial low passing rates for both students with disabilities and English learners suggest particular concern with the time it may take to help these students master the required standards. Options to be considered range from more liberal use of accommodations, to some form of alternative diploma for students who are physically unable to develop or demonstrate the required skills, and also to deferring the graduation requirement for these students.

Other Specific Findings and Recommendations

Based on activities and findings from the first two years of the evaluation, we offer a number of other, more specific recommendations. These include:

Specific Recommendation 1: More technical oversight is needed.

Because of the rapid pace of implementation, a number of decisions have been made without technical review of the consequences. Examples are the decision to shorten the tests without public consideration of consequences for test score accuracy and the lack of review of plans for equating scores from the different test forms used in March and May.

In response to a prior recommendation for more technical oversight, CDE engaged independent technical expertise and is in the process of transforming its Technical Studies Group to provide specific and timely advice on psychometric issues with the CAHSEE and other state assessment programs. CDE and the Board have engaged an additional panel of experts to address technical and coordination issues across state assessment programs. To

date, however, this panel has not had time to address the range of specific technical issues requiring immediate attention.

Specific Recommendation 2: For future classes, testing should be delayed until the 10th grade.

The initial CAHSEE legislation required that the test be offered to 9th graders. Attempts to amend this legislation (SB-84 and AB-1609) to defer initial testing until the 10th grade are based on concerns that 9th graders have not all had opportunities to learn some of the material covered by the CAHSEE. Our analyses support this position. Many students do not receive instruction in important content standards until the 10th grade. For mathematics, results from the March 2001 administration showed a close link between passing rates and the mathematics courses students had completed. Results from the field tests showed that more students were able to answer the mathematics questions correctly at the end of the 10th grade in comparison to students at the beginning of the 10th grade. For ELA, teachers reported that several of the more difficult standards were most fully covered in 10th grade English courses.

Specific Recommendation 3: A practice test of released CAHSEE items should be constructed and given to districts and schools to use with 9th graders to identify students at risk of failing the CAHSEE.

While it may be unfair to administer the CAHSEE to 9th graders when many have not yet completed essential courses, some means of identifying 9th grade students at risk of failing would be useful. Schools and the at-risk students themselves could then put additional efforts into mastering the required material, while freeing other students to work on more advanced skills. A practice test, with scoring instructions included, so that teachers and students can gauge how much additional effort might be needed to reach passing levels, should be developed, and should include as much diagnostic information as possible. In addition, research linking the 8th and 9th grade California Standards Test used for school accountability to future CAHSEE administrations could also provide a means of identifying students who will need additional help to pass the CAHSEE. However, as noted under specific recommendation 5 below, privacy concerns create a significant barrier to conducting such research.

Specific Recommendation 4: More extensive monitoring of test administration and a system for identifying and resolving issues is needed.

Observation of the initial administration revealed some concern about describing and enforcing procedures for test session breaks so as to maintain test security. In addition, procedures for determining appropriate testing accommodations may need further clarification and reinforcement. CDE and its contractor for test administration should continue to summarize lessons learned from the 2001 CAHSEE administrations and provide additional mandatory training for test coordinators prior to the 2002 administrations.

Specific Recommendation 5: The state needs a more comprehensive information system that will allow it to monitor individual student progress.

Privacy concerns currently prohibit the state from maintaining databases that include both test scores and identifying information for individual students. Third party evaluators have difficulty, or may even be prevented from, obtaining such information. In the present evaluation, for example, we cannot yet tell how many students passed both parts of the CAHSEE, because information needed to match students' mathematics and ELA results was not made available. We were also unable to obtain identifying information needed to link students' performance on the field test questions to their STAR scores.

It is not clear that school and district information systems will necessarily support data requirements associated with the CAHSEE. How will information on whether students have taken and passed part or all of the CAHSEE be maintained for students who transfer between districts? Will schools and districts be able to enforce the requirement that, in 2002, all 10th graders who have not passed the CAHSEE take the exam? CDE does not have access to the information necessary to identify students who fail to test and cannot, therefore, help in monitoring this requirement.

In addition, information on cumulative passing rates for each high school class is needed to answer important policy questions, including whether to defer the initial CAHSEE requirement. The state will not have information on score gains for individual students if results cannot be linked across testing years. A mechanism for creating cumulative databases without infringing on student privacy concerns is clearly needed. Further, as suggested above, research data on the relationship between scores from other state-mandated assessments and scores on the CAHSEE exams would provide useful information for improving assessment policies. Examples include whether scores from tests in the Golden State Exam could or should be counted in allowing students to meet the CAHSEE requirements and whether scores on the 8th, 9th, and even 10th grade standards tests are useful in identifying students at risk of failing the CAHSEE.

Specific Recommendation 6: The Superintendent, SBE, and legislature should specify in more detail how students in special circumstances will be treated by the CAHSEE requirements.

A number of students may not have the full range of opportunities to take the CAHSEE. These include students who transfer into the state in the 12th grade; students in the Class of 2003 who, through illness or other unforeseen circumstance, fail to graduate on time and will then be subjected to requirements for the Class of 2004; and English learners who may be exempted from taking the CAHSEE until late in their high school years. Such students would miss out on several opportunities to pass the CAHSEE and end up with at most 3 or 4 chances to pass the test rather than the 8 chances most students would have.

The current legislation does not specify a process for waivers and exceptions for special circumstances, as is the case with graduation examinations in many other states. Section 60856 of the Education Code does require the Superintendent and State Board of Education to "study the appropriateness of other criteria by which high school pupils who are regarded

as highly proficient but unable to pass the high school exit examination may demonstrate their competency and receive a high school diploma.” The Superintendent and SBE are required to forward recommendations to the legislature for enactment. To date, much of the discussion about this provision assumes that “highly proficient” means well above the minimum criteria as evidenced, for example, by passing scores on the Golden State Exam for advanced courses. Now that initial administration of the CAHSEE has been completed, we recommend that broad consideration be given to all of the circumstances under which students with the required proficiency may not be able to pass the exam in a timely manner.

In making each of the above recommendations, we recognize the provisional nature of the data available at this time. A more complete analysis of the 2001 administration of the CAHSEE, including results from testing in May, will be presented in a legislatively mandated evaluation report to be submitted by February 1, 2002. That report will also cover plans and progress for future administrations and a continuing discussion of ways to demonstrate whether students are being provided sufficient opportunity to learn the knowledge and skills specified in the CAHSEE content standards.

REFERENCES

- American Institutes for Research. (2000, Aug. 23). *The California high school exit exam: Spring 2000 field test technical report*. Palo Alto, CA: Author.
- Dorans, N.J., & Holland, P.W. (1993). DIF detection and description: Mantel-Haenszel and standardization. In P.W. Holland & H. Wainer (Eds.), *Differential item functioning*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Lord, F.M., & Novick, M.R. (1968) *Statistical theories of mental test scores*. Reading, MA: Addison-Wesley Publishing Company.
- Mantel, N., & Haenszel, W. (1959). Statistical aspects of the analysis of data from retrospective studies of disease. *Journal of the National Cancer Institute*, 22, 719-748.
- Muraki, E. (1997). A generalized partial credit model. In Wim J. van der Linden & Ronald K. Hambleton (Eds.), *Handbook of Modern Item Response Theory* (Chapter 9). New York: Springer.
- Muraki, E. (1992). A generalized partial credit model: Application of an EM algorithm. *Applied Psychological Measurement* (16), 159–176.
- Sipes, D. E., Harris, C. D., Wise, L. L., & Gribben, M. A. (2001). *High school exit examination (HSEE): Fall 2000 district baseline survey report* (IR-01-01). Alexandria, VA: Human Resources Research Organization. [On-Line]. Portions Available: <http://www.cde.ca.gov/statetests/hsee/DistBaseSumPrelimExec.pdf>
- van der Linden, W.J., & Hambleton, R.K. (Eds.). (1997). *Handbook of Modern Item Response Theory*. New York: Springer.
- Wise, L. L., Hoffman, R. G., & Harris, C. D. (2000). *The California high school exit examination (HSEE): Evaluation plan*. Alexandria, VA: Human Resources Research Organization.
- Wise, L.L., Harris, C.D., Sipes, D.E., Hoffman, R.G., & Ford, J.P. (2000a, June 30). *High school exit examination (HSEE): Year 1 evaluation report* (HumRRO Preliminary Report IR–00–27r). Alexandria, VA: Human Resources Research Organization. [On-Line]. Available: http://www.cde.ca.gov/statetests/hsee/HumRRO_YR1_Report.pdf
- Wise, L.L., Sipes, D.E., Harris, C.D., Collins, M.M., Hoffman, R.G., & Ford, J.P. (2000b, August 25). *High school exit examination (HSEE): Supplemental year 1 evaluation report* (HumRRO Supplemental Report IR–00–37). Alexandria, VA: Human Resources Research Organization. [On-Line]. Available: http://www.cde.ca.gov/statetests/hsee/Supplemental_YR1_Report_8-25-00.pdf

APPENDIX A

Standards Taught

Standards Taught

TABLE A.1 Percent of Raters Listing Each Course and Percent Saying Most Students Take the Course: Mathematics

Course	Percent of Raters Listing the Course	Percent Saying Most Student Take the Course
A. General Math	15.0%	16.7%
B. Math A	20.0%	9.4%
C. Math B	15.0%	33.3%
D. Pre-Algebra	50.0%	30.0%
E. Beginning Algebra	82.5%	55.5%
F. Intermediate Algebra	80.0%	11.6%
G. Plane Geometry	70.0%	28.6%
H. Integrated Math I	12.5%	70.0%
I. Integrated Math II	12.5%	40.0%
J. Consumer Math	2.5%	0.0%
K. Remedial Math	0.0%	N/A

TABLE A.2 Courses where Specific Standards are Taught: Mathematics

a. P6: Understand difference between independent and dependent events				
Course	Total	Percent	Fully Taught Number	Percent
A. General Math	5	12.5%		
B. Math A	6	15.0%		
C. Math B	1	2.5%		
D. Pre-Algebra	17	42.5%	3	17.6%
E. Beginning Algebra	20	50.0%	6	30.0%
F. Intermediate Algebra	15	37.5%	8	53.3%
G. Plane Geometry	6	15.0%		
H. Integrated Math I	4	10.0%		
I. Integrated Math II	2	5.0%		
J. Consumer Math	1	2.5%		
K. Remedial Math	0	0.0%		
Not Taught	0	0.0%		
No Response	4	10.0%		
b. AF 3.1: Graph functions of the form $y=n^2$ and $y=n^3$ and use in solving problem.				
Course	Total	Percent	Fully Taught Number	Percent
A. General Math	1	2.5%		
B. Math A	2	5.0%		
C. Math B	3	7.5%		
D. Pre-Algebra	8	20.0%		
E. Beginning Algebra	24	60.0%	8	33.3%
F. Intermediate Algebra	25	62.5%	23	92.0%
G. Plane Geometry	5	12.5%		
H. Integrated Math I	3	7.5%		
I. Integrated Math II	3	7.5%		
J. Consumer Math	1	2.5%		
K. Remedial Math	0	0.0%		
Not Taught	1	2.5%		
No Response	3	7.5%		

TABLE A.2 Courses where Specific Standards are Taught: Mathematics

c. AF 3.4: Plot value whose ratios are the same; understand that the slope equals the ratio				
Course	Total	Percent	Fully Taught Number	Percent
A. General Math	4	10.0%		
B. Math A	3	7.5%		
C. Math B	3	7.5%		
D. Pre-Algebra	8	20.0%		
E. Beginning Algebra	24	60.0%	4	16.7%
F. Intermediate Algebra	20	50.0%	5	25.0%
G. Plane Geometry	7	17.5%	25	357.1%
H. Integrated Math I	3	7.5%		
I. Integrated Math II	3	7.5%		
J. Consumer Math	1	2.5%		
K. Remedial Math	0	0.0%		
Not Taught	4	10.0%		
No Response	3	7.5%		
d. MG 3.2 Plot figures, determine lengths and areas, translate and reflect.				
Course	Total	Percent	Fully Taught Number	Percent
A. General Math	2	5.0%		
B. Math A	1	2.5%		
C. Math B	3	7.5%		
D. Pre-Algebra	6	15.0%		
E. Beginning Algebra	20	50.0%	21	105.0%
F. Intermediate Algebra	14	35.0%	25	178.6%
G. Plane Geometry	28	70.0%		
H. Integrated Math I	4	10.0%		
I. Integrated Math II	4	10.0%		
J. Consumer Math	1	2.5%		
K. Remedial Math	0	0.0%		
Not Taught	2	5.0%		
No Response	0	0.0%		
e. A1 9.0: Solve system of two linear equations and interpret answer graphically.				
Course	Total	Percent	Fully Taught Number	Percent
A. General Math	1	2.5%		
B. Math A	1	2.5%		
C. Math B	4	10.0%		
D. Pre-Algebra	3	7.5%		
E. Beginning Algebra	29	72.5%	23	79.3%
F. Intermediate Algebra	26	65.0%	26	100.0%
G. Plane Geometry	9	12.5%		
H. Integrated Math I	2	5.0%		
I. Integrated Math II	4	10.0%		
J. Consumer Math	1	2.5%		
K. Remedial Math	0	0.0%		
Not Taught	1	2.5%		
No Response	1	2.5%		

TABLE A.2 Courses where Specific Standards are Taught: Mathematics

f. A1 10.0: Add, subtract, multiply and divide monomials and polynomials.					
Course		Total	Percent	Fully Taught Number	Percent
A.	General Math	1	2.5%	21	70.0%
B.	Math A	2	5.0%		
C.	Math B	3	7.5%		
D.	Pre-Algebra	7	17.5%		
E.	Beginning Algebra	30	75.0%		
F.	Intermediate Algebra	26	65.0%		
G.	Plane Geometry	7	17.5%		
H.	Integrated Math I	2	5.0%		
I.	Integrated Math II	4	10.0%		
J.	Consumer Math	1	2.5%		
K.	Remedial Math	0	0.0%		
Not Taught		1	2.5%	26	100.0%
No Response		0	0.0%		

g. A1 15.0: Apply algebraic techniques to solve rate, work, and mixture problems.					
Course		Total	Percent	Fully Taught Number	Percent
A.	General Math	1	2.5%	12	36.4%
B.	Math A	2	5.0%		
C.	Math B	3	7.5%		
D.	Pre-Algebra	7	17.5%		
E.	Beginning Algebra	33	82.5%		
F.	Intermediate Algebra	23	57.5%		
G.	Plane Geometry	3	7.5%		
H.	Integrated Math I	2	5.0%		
I.	Integrated Math II	2	5.0%		
J.	Consumer Math	1	2.5%		
K.	Remedial Math	0	0.0%		
Not Taught		0	0.0%	12	52.2
No Response		0	0.0%		

TABLE A.3 Percent of Raters Listing Each Course and Percent Saying Most Students Take the Course: ELA

Course	Percent of Raters Listing the Course	Percent Saying Most Student Take the Course
A. Comprehensive English - Grade 7	5.0%	100.0%
B. Comprehensive English - Grade 8	7.5%	84.1%
C. Comprehensive English - Grade 9	85.0%	71.5%
D. Comprehensive English - Grade 10	77.5%	66.2%
E. American Literature	77.5%	62.0%
F. English Literature	42.5%	46.7%
G. World/Other Literature	17.5%	39.3%
H. Composition	17.5%	26.2%
I. Language Structure/Language Arts	5.0%	14.3%
J. English as a Second Language	10.0%	16.7%
K. Developmental Reading	2.5%	50.0%

TABLE A.4 Courses where Specific Standards are Taught: ELA

RC 2.3: Generate relevant questions about readings on issues that can be researched.				
Course	Total	Percent	Fully Taught Number	Percent
C. Comprehensive English - Grade 9	26	65.0%	8	30.8%
E. American Literature	23	57.5%	9	39.1%
D. Comprehensive English - Grade 10	21	52.5%	8	38.1%
B. Comprehensive English - Grade 8	3	7.5%		
F. English Literature	3	7.5%		
H. Composition	3	7.5%		
A. Comprehensive English - Grade 7	2	5.0%		
I. Language Structure/Language Arts	1	2.5%		
J. English as a Second Language	1	2.5%		
Not Taught	1	2.5%		
No Response	6	15.0%		
RC 2.8: Evaluate the 1.credibility of author's argument				
Course	Total	Percent	Fully Taught Number	Percent
E. American Literature	17	42.5%	8	47.1%
C. Comprehensive English - Grade 9	14	35.0%	3	21.4%
D. Comprehensive English - Grade 10	14	35.0%	5	35.7%
F. English Literature	8	20.0%		
G. World/Other Literature	3	7.5%		
H. Composition	2	5.0%		
J. English as a Second Language	2	5.0%		
I. Language Structure/Language Arts	1	2.5%		
K. Developmental Reading	1	2.5%		
Not Taught	3	7.5%		
No Response	5	12.5%		
LR 3.1: Articulate relationship between purposes and characteristics of different forms of drama.				
Course	Total	Percent	Fully Taught Number	Percent
C. Comprehensive English - Grade 9	20	50.0%	9	45.0%
D. Comprehensive English - Grade 10	22	55.0%	7	31.8%
E. American Literature	14	35.0%	8	57.1%
F. English Literature	10	25.0%		
B. Comprehensive English - Grade 8	1	2.5%		
I. Language Structure/Language Arts	1	2.5%		
J. English as a Second Language	1	2.5%		
K. Developmental Reading	1	2.5%		
Not Taught	2	5.0%		
No Response	4	10.0%		

TABLE A.4 Courses where Specific Standards are Taught: ELA

LR 3.7: Recognize and understand significance of various devices and explain their appeal.				
Course	Total	Percent	Fully Taught Number	Percent
E. American Literature	25	62.5%	11	44.0%
D. Comprehensive English - Grade 10	28	70.0%	14	50.0%
C. Comprehensive English - Grade 9	29	72.5%	13	44.8%
F. English Literature	3	7.5%		
B. Comprehensive English - Grade 8	2	5.0%		
A. Comprehensive English - Grade 7	0	0.0%		
G. World/Other Literature	0	0.0%		
Not Taught	0	0.0%		
No Response	5	12.5%		
LR 3.8: Evaluate impact of ambiguities, subtleties, contradictions, ironies, and incongruities.				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	0	0.0%		
B. Comprehensive English - Grade 8	0	0.0%		
C. Comprehensive English - Grade 9	17	42.5%	3	17.6%
D. Comprehensive English - Grade 10	16	40.0%	6	37.5%
E. American Literature	22	55.0%	3	13.6%
F. English Literature	11	27.5%		
G. World/Other Literature	4	10.0%		
H. Composition	0	0.0%		
I. Language Structure/Language Arts	0	0.0%		
J. English as a Second Language	0	0.0%		
K. Developmental Reading	0	0.0%		
Not Taught	1	2.5%		
No Response	4	10.0%		
LR 3.12: Analyze ways a work of literature is related to themes and issues of its historical period.				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	1	2.5%		
B. Comprehensive English - Grade 8	2	5.0%		
C. Comprehensive English - Grade 9	15	37.5%	5	33.3%
D. Comprehensive English - Grade 10	18	45.0%	6	33.3%
E. American Literature	26	65.0%	4	15.4%
F. English Literature	11	27.5%		
G. World/Other Literature	1	2.5%		
H. Composition	0	0.0%		
I. Language Structure/Language Arts	0	0.0%		
J. English as a Second Language	0	0.0%		
K. Developmental Reading	0	0.0%		
Not Taught	1	2.5%		
No Response	3	7.5%		

TABLE A.4 Courses where Specific Standards are Taught: ELA

WS 1.1: Establish a controlling impression or coherent thesis.				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	1	2.5%	18	66.7%
B. Comprehensive English - Grade 8	3	7.5%		
C. Comprehensive English - Grade 9	27	67.5%		
D. Comprehensive English - Grade 10	29	72.5%		
E. American Literature	23	57.5%	17	73.9%
F. English Literature	5	12.5%		
G. World/Other Literature	0	0.0%		
H. Composition	5	12.5%		
I. Language Structure/Language Arts	2	5.0%		
J. English as a Second Language	0	0.0%		
K. Developmental Reading	2	5.0%		
Not Taught	1	2.5%		
No Response	2	5.0%		
WS 1.2: Use precise language, action verbs, sensory details, appropriate modifiers and active voice				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	1	2.5%	12	48.0%
B. Comprehensive English - Grade 8	2	5.0%		
C. Comprehensive English - Grade 9	25	62.5%		
D. Comprehensive English - Grade 10	25	62.5%		
E. American Literature	16	40.0%	7	43.8%
F. English Literature	6	15.0%		
G. World/Other Literature	1	2.5%		
H. Composition	3	7.5%		
I. Language Structure/Language Arts	1	2.5%		
J. English as a Second Language	0	0.0%		
K. Developmental Reading	1	2.5%		
Not Taught	1	2.5%		
No Response	2	5.0%		

TABLE A.4 Courses where Specific Standards are Taught: ELA

WS 1.5: Synthesize information from multiple sources and identify complexities and discrepancies				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	0	0.0%		
B. Comprehensive English - Grade 8	0	0.0%		
C. Comprehensive English - Grade 9	17	42.5%	3	17.6%
D. Comprehensive English - Grade 10	14	35.0%	5	35.7%
E. American Literature	15	37.5%	9	60.0%
F. English Literature	6	15.0%		
G. World/Other Literature	2	5.0%		
H. Composition	2	5.0%		
I. Language Structure/Language Arts	0	0.0%		
J. English as a Second Language	0	0.0%		
K. Developmental Reading	0	0.0%		
Not Taught	4	10.0%		
No Response	2	5.0%		
WC 1.2: Understand sentence Construction and proper English usage.				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	0	0.0%		
B. Comprehensive English - Grade 8	1	2.5%		
C. Comprehensive English - Grade 9	25	62.5%	10	40.0%
D. Comprehensive English - Grade 10	21	52.5%	8	38.1%
E. American Literature	18	45.0%	7	38.9%
F. English Literature	6	15.0%		
G. World/Other Literature	1	2.5%		
H. Composition	4	10.0%		
I. Language Structure/Language Arts	1	2.5%		
J. English as a Second Language	2	5.0%		
K. Developmental Reading	0	0.0%		
Not Taught	2	5.0%		
No Response	2	5.0%		

TABLE A.4 Courses where Specific Standards are Taught: ELA

WC 1.3: Demonstrate understanding of proper English usage ...				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	0	0.0%	11	55.0%
B. Comprehensive English - Grade 8	1	2.5%		
C. Comprehensive English - Grade 9	3	7.5%		
D. Comprehensive English - Grade 10	20	50.0%		
E. American Literature	19	47.5%		
F. English Literature	6	15.0%		
G. World/Other Literature	4	10.0%		
H. Composition	0	0.0%		
I. Language Structure/Language Arts	0	0.0%		
J. English as a Second Language	2	5.0%		
K. Developmental Reading	0	0.0%		
Not Taught	0	0.0%	9	47.4%
No Response	2	5.0%		
WA: 2.4 Write persuasive compositions.				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	0	0.0%	11	68.8%
B. Comprehensive English - Grade 8	0	0.0%		
C. Comprehensive English - Grade 9	18	45.0%		
D. Comprehensive English - Grade 10	23	57.5%		
E. American Literature	16	40.0%		
F. English Literature	6	15.0%		
G. World/Other Literature	0	0.0%		
H. Composition	3	7.5%		
I. Language Structure/Language Arts	1	2.5%		
J. English as a Second Language	0	0.0%		
K. Developmental Reading	0	0.0%		
Not Taught	2	5.0%	6	33.3%
No Response	2	5.0%		
WA 2.5: Write business letters				
Course	Total	Percent	Fully Taught Number	Percent
A. Comprehensive English - Grade 7	1	2.5%	9	56.3%
B. Comprehensive English - Grade 8	1	2.5%		
C. Comprehensive English - Grade 9	16	40.0%		
D. Comprehensive English - Grade 10	16	40.0%		
E. American Literature	8	20.0%		
F. English Literature	6	15.0%		
G. World/Other Literature	2	5.0%		
H. Composition	1	2.5%		
I. Language Structure/Language Arts	0	0.0%		
J. English as a Second Language	0	0.0%		
K. Developmental Reading	0	0.0%		
Not Taught	8	20.0%	6	37.5%
No Response	2	5.0%		

APPENDIX B

Principal and Teacher Surveys—Spring 2001

California High School Exit Examination Evaluation (CAHSEE) Principal Longitudinal Sample Survey Spring 2001

Principal Name: _____

School Name: _____

DIRECTIONS: Please provide the following information by marking in the circle of the appropriate response or by writing an appropriate response.

About You and Your School

1. What is your highest level of education?

- ☐ Bachelor's (4-year) degree
☐ Some graduate school
☐ Master's Degree
☐ Doctorate Degree
☐ Other (please specify) _____

2. What is your gender?

- ☐ Female
☐ Male

5. Including the 2000-2001 school year, how many years...

...have you been
a principal
(or school-level
administrator)?

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

...were you
a
teacher?

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

...have you
worked in your
present school?

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

...have you
worked in public
schools?

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

3. What is your primary ethnic background?

- ☐ American Indian/Alaskan Native
☐ Asian or Pacific Islander
☐ Black or African American, not Hispanic origin
☐ Caucasian, not Hispanic origin
☐ Hispanic/Latino
☐ Other (specify) _____

4. When you were a teacher, what was the primary subject area that you taught?

6. For the 2000-2001 school year:

How many
teachers
are on your
staff?

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

What
percentage of
your teachers
have taught at
this school for 3
years or more?

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

%

What percentage
of your teachers
have earned
advanced degrees
(i.e., beyond
BA/BS)?

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

%

What percentage
of your teachers
are certified in the
subject they are
teaching?

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

%

7. Which of the following best describes the trend in your staffing?

- ☐ Increasing the proportion of teachers working out of credential
☐ Continuing at about the same proportion of teachers working out of credential
☐ Decreasing the proportion of teachers working out of credential

8. Have there been any major staff or faculty changes in your school over the past three years? If so, please describe.

9. What is your school's student-counselor ratio?

- ☐ less than 50:1
☐ 50 to 100:1
☐ 101 to 200:1
☐ 201 to 300:1
☐ greater than 300:1

10. Does your school have a test site coordinator?

- ☐ yes
☐ no
☐ Will have by _____
date

11. How is your school year configured?

- ☐ Semesters
☐ Trimesters
☐ Quarters
☐ Year-Round School
☐ Other (please specify)

12. How many academic class periods are in your school day?

- ☐ 1 ☐ 6
☐ 2 ☐ 7
☐ 3 ☐ 8
☐ 4 ☐ 9
☐ 5 ☐ 10

13. What grades are taught at your school?

- ☐ 9th, 10th, 11th, 12th
☐ 10th, 11th, 12th
☐ 7th, 8th, 9th
☐ Other (please specify) _____

14. How long is each academic class period (in minutes)?

0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

15. If you use any block scheduling, please describe.

16. Indicate the various specialty education programs offered by your school. (Mark all that apply; estimate percentage (%) of students who participate in each; and comment.)

☐ Remedial Courses

			%
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

☐ Magnet Program

			%
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

☐ Special Education

			%
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

☐ Program for English Learners

			%
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

☐ Multicultural/Diversity-Based

			%
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

Comments:

(continued)

16. Indicate the various specialty education programs offered by your school. (Mark all that apply; estimate percentage (%) of students who participate in each; and comment.)

<input type="radio"/> Advanced Placement	<input type="radio"/> International Baccalaureate	<input type="radio"/> School/Community/ Business Partnerships	<input type="radio"/> Targeted Tutoring	<input type="radio"/> Other (specify) _____	Comments: _____
<div> <div> <div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div> </div> </div> <div> <div>0</div><div>0</div><div>0</div> </div> <div> <div>1</div><div>1</div><div>1</div> </div> <div> <div>2</div><div>2</div><div>2</div> </div> <div> <div>3</div><div>3</div><div>3</div> </div> <div> <div>4</div><div>4</div><div>4</div> </div> <div> <div>5</div><div>5</div><div>5</div> </div> <div> <div>6</div><div>6</div><div>6</div> </div> <div> <div>7</div><div>7</div><div>7</div> </div> <div> <div>8</div><div>8</div><div>8</div> </div> <div> <div>9</div><div>9</div><div>9</div> </div>					

17. Consider your students, overall, and within each of the following racial/ethnic groups. Estimate your current graduation rate. Estimate the mobility rate in a typical school year.

	Seniors Overall	American Indian/ Alaskan Native	Asian or Pacific Islander	Black or African American, not Hispanic origin	Caucasian not Hispanic origin	Hispanic/ Latino	Other (specify) _____
Current graduation rate (% of entering 9th graders who graduate within 4-5 years)	<div> <div> <div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div> </div> <div> <div></div><div></div><div></div> </div> </div> <div> <div>0</div><div>0</div><div>0</div> </div> <div> <div>1</div><div>1</div><div>1</div> </div> <div> <div>2</div><div>2</div><div>2</div> </div> <div> <div>3</div><div>3</div><div>3</div> </div> <div> <div>4</div><div>4</div><div>4</div> </div> <div> <div>5</div><div>5</div><div>5</div> </div> <div> <div>6</div><div>6</div><div>6</div> </div> <div> <div>7</div><div>7</div><div>7</div> </div> <div> <div>8</div><div>8</div><div>8</div> </div> <div> <div>9</div><div>9</div><div>9</div> </div>						

18. Based on your own most recent school data (e.g., Senior Survey), what percentage of your seniors indicated each main activity as their choice for the year after they graduate from high school? The row percentages should total approximately 100%.

	0	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100 %
Working full time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending a vocational, technical, or business school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending a 2-year college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending a 4-year college, service academy, university	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Serving in the regular military service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

☐ We do not collect this type of data.

19. Have there been any changes in the student demographics and/or academic environment over the past three years (e.g., push for new programs - advanced or remedial, graduation or dropout rate, interest in college, school boundaries)? If so, please describe.

20. How would you describe the academic atmosphere of your school (e.g., rigor of the curriculum, staff's satisfaction with the curriculum, student motivation and effort, parental involvement, etc.)?

21. How would you describe the education level of your students' parents? Estimate the overall average percent of parents in each of the following categories. The row percentages should total approximately 100%.

	0	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100 %
Less than high school graduation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High school diploma or GED	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vocational, technical, or business training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Associate, 2-year degree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
College graduate (4- or 5-year degree)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some graduate school or graduate degree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

About the California High School Exit Examination (CAHSEE)

22. How much do you know about the:

a. California High School Exit Examination (CAHSEE)?

- ☐ I do not know anything about the CAHSEE.
- ☐ I have only general information about the CAHSEE.
- ☐ I know what knowledge and skills are covered by the CAHSEE.
- ☐ I know the plans for administering the CAHSEE.

b. State Content Standards?

- ☐ I do not know anything about the state content standards.
- ☐ I have only general information about the content standards.
- ☐ I am very knowledgeable about the content standards.

c. CAHSEE Score Report?

- ☐ I do not know anything about the CAHSEE score report.
- ☐ I have only general information about the CAHSEE score report.
- ☐ I am very knowledgeable about information in the CAHSEE score report and how to apply it.

23. What have been your sources of information about the CAHSEE? (Mark all that apply.)

- ☐ None
- ☐ State-provided information
- ☐ District-provided information
- ☐ Newspaper
- ☐ Education organization (e.g., publication, meeting, etc.)
- ☐ Professional association (e.g., publication, meeting, etc.)
- ☐ CDE website
- ☐ Computer-based source (e.g., listserv, newsgroup, etc.)
- ☐ Other (specify) _____

24. The state level provides information regarding the CAHSEE to the district level for dissemination to the schools. In general, how do you rate the CAHSEE information that you and your school received from your district?

a. Sufficiency of Information

- ☐ Less than adequate
- ☐ Adequate
- ☐ More than adequate

b. Usefulness of Information

- ☐ Not very useful
- ☐ Useful
- ☐ Very useful

c. Timeliness of Information

- ☐ Too late for our needs
- ☐ On time for our needs
- ☐ Ahead of our needs

25. a. How aware do you think students in your school are of the CAHSEE? (Mark all that apply.)

- ☐ They know nothing about the exam.
- ☐ They have only general information about the exam.
- ☐ They know what knowledge and skills are covered by the exam.
- ☐ They know the time of year when the exam is given.
- ☐ They know which students have the opportunity to take the exam.

25. b. What is your estimate of the percentage of students in your school who know what knowledge and skills are covered by the exam?

			%
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

26. a. How aware do you think parents of students in your school are of the CAHSEE? (Mark all that apply.)

- ☐ They know nothing about the exam.
- ☐ They have only general information about the exam.
- ☐ They know what knowledge and skills are covered by the exam.
- ☐ They know when the exam will be given.
- ☐ They know which students have the opportunity to take the exam.

26. b. What is your estimate of the percentage of parents of students in your school who know what knowledge and skills are covered by the exam?

			%
0	0	0	
1	1	1	
2	2	2	
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

27. The relationship between your district standards for English/language arts and those described by the English-Language Arts Content Standards and the Reading/Language Arts Framework can best be described by which of the following statements? (Mark only one.)

- ☐ Our district has adopted the state content standards.
- ☐ The state content standards include more than our district content standards.
- ☐ Our district content standards include more than the state content standards.
- ☐ The two sets of content standards are different.
- ☐ I cannot judge the relationship between our district standards and the state standards.
- ☐ Our district does not have an official set of content standards

28. The relationship between your district standards for mathematics and those described by the Mathematics Content Standards and the Mathematics Framework can best be described by which of the following statements? (Mark only one.)

- ☐ Our district has adopted the state content standards.
- ☐ The state content standards include more than our district content standards.
- ☐ Our district content standards include more than the state content standards.
- ☐ The two sets of content standards are different.
- ☐ I cannot judge the relationship between our district standards and the state standards.
- ☐ Our district does not have an official set of content standards.

29. Consider the full set of state content standards and mark ALL that apply.

- ☐ Our district encourages use of the content standards to organize instruction.
- ☐ Our current textbooks align well with the content standards.
- ☐ We can cover all of the content standards with a mix of textbooks and supplemental material.
- ☐ Our district is in the process of aligning its curriculum to the state standards.
- ☐ Our district is in the process of aligning its curriculum across grade levels.
- ☐ Our district has a plan, which ensures that all high school students receive instruction in each of the content standards.
- ☐ Our district has a plan that ensures that all pre-high school students are prepared to receive instruction in each of the content standards.
- ☐ Our district has adopted algebra as a graduation requirement.
- ☐ Our district (or school) is hiring only teachers certified in their field.
- ☐ Our district (or school) is assigning teachers only in their certified fields.

30. What activities did your school undertake to prepare faculty/staff for the spring 2001 administration of the CAHSEE? (Mark all that apply.)

- ☐ No special preparation.
- ☐ Administrators participated in February test administration workshops.
- ☐ Delivered local workshops on test administration.
- ☐ Delivered local workshops on CAHSEE content (e.g., used Teacher Guides as a focal point for discussion).
- ☐ Provided test taking strategies.
- ☐ Other (please specify) _____

31. What activities did your school undertake to prepare students for the spring 2001 administration of the CAHSEE? (Mark all that apply.)

For those activities you marked in the 1st column, mark the three (3) that you consider most important in your CAHSEE preparation.

For those activities you marked in the 1st column, what percentage of your students do you estimate are affected by each?

		0%	1-20 %	21-40 %	41-60 %	61-80 %	81-100 %
<input type="radio"/> No special preparation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Encourage students to work hard and prepare	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Provide individual/group tutoring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Teach test-taking skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Modify curriculum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Increase summer school offerings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Add homework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Eliminate electives in favor of remedial classes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Use school test results to change instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Use school test results to design remedial instruction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Adopt state content standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Change graduation requirements to include courses that enhance student success on the CAHSEE	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Other (specify) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. During this school year (2000-2001), how much time, in total, do you estimate you have spent in activities specifically related to the CAHSEE (e.g., meetings, discussions, curriculum review, your professional development, your staff's development, etc.)?

- ☐ None
☐ Less than 6 hours
☐ 6-15 hours
☐ 16-35 hours
☐ More than 35 hours

33. Based on your knowledge of your faculty, what percentage of your teachers do you think understand the difference between *teaching to the test* and *aligning curriculum and instruction to the standards*?

- ☐ Fewer than 50%
☐ 50-74%
☐ 75-95%
☐ Greater than 95%
☐ Unsure

34. What plans has your school made to prepare for assisting high school students — who do not pass the exit exam or who do not seem prepared to take it? (Mark all that apply.)

	Who do not pass the CAHSEE?	Who do not seem prepared to take the CAHSEE?
No special plans	<input type="radio"/>	<input type="radio"/>
Increase high school remedial courses	<input type="radio"/>	<input type="radio"/>
Reduce high school electives in favor of remedial classes	<input type="radio"/>	<input type="radio"/>
Increase high school summer school offerings	<input type="radio"/>	<input type="radio"/>
Provide individual/group tutoring	<input type="radio"/>	<input type="radio"/>
Add homework	<input type="radio"/>	<input type="radio"/>
Adopt state content standards	<input type="radio"/>	<input type="radio"/>
Alter high school curriculum	<input type="radio"/>	<input type="radio"/>
Work with feeder middle schools	<input type="radio"/>	<input type="radio"/>
Develop parent support program	<input type="radio"/>	<input type="radio"/>
Use school test results to change high school instruction	<input type="radio"/>	<input type="radio"/>
Evaluate high school students' abilities and place them in courses/programs accordingly	<input type="radio"/>	<input type="radio"/>
Ensure that students are taking demanding courses from the beginning	<input type="radio"/>	<input type="radio"/>
Ensure we are offering demanding courses from the beginning	<input type="radio"/>	<input type="radio"/>
Other (specify) _____	<input type="radio"/>	<input type="radio"/>

35. Based on your knowledge of the English-Language Arts standards assessed by the CAHSEE, what percentage of your students do you think will meet these standards by the end of 10th grade?

- ☐ Fewer than 50%
☐ 50-74%
☐ 75-95%
☐ Greater than 95%
☐ Unsure

36. Based on your knowledge of the mathematics standards assessed by the CAHSEE, what percentage of your students do you think will meet these standards by the end of 10th grade?

- ☐ Fewer than 50%
☐ 50-74%
☐ 75-95%
☐ Greater than 95%
☐ Unsure

37. Based on what you know about your school, what do you predict the impact of the CAHSEE, will be on...

	Strongly Negative	Negative	No Effect	Positive	Strongly Positive
a....student motivation prior to taking the exam for the first time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b....motivation to excel for students who pass the first time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c.... motivation to excel for students who fail the first time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d....parental involvement prior to the first required administration of the exam?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e....parental involvement for students who pass the exam?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f....parental involvement for students who fail the exam?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g....student retention rates?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h....student dropout rates?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38. Based on what you know about your school, what do you predict the influence of the CAHSEE will be on classroom instructional practices...

	Considerably Improved	Improved	No Effect	Weakened	Considerably Weakened
a....next year (2001-2002)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b....in 3 years (2003-2004)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c....in 5 years (2005-2006)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. What percentage of your school's 10th grade students in each of the following groups would you say have had instruction that covers the English-Language Arts content standards for the exam?

	Fewer Than 50%	50-74%	75-95%	Greater Than 95%
a....all your school's 10th grade students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b....10th grade students with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c....10th grade English learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d....10th grade economically disadvantaged students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e....10th grade minority student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

40. Which of the following do you consider to be a factor in your students' success in meeting the requirements of the CAHSEE? (Mark one response for each possible factor.)

	Not a Factor	Possibly a Factor	Definitely a Factor
a. Lack of preparation needed to pass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Lack of motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Poor attendance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Too many tests to prepare for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Language barriers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Our district's current level of standards in English or writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Our district's current level of standards in math or algebra	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

41. What percentage of your school's 10th grade students in each of the following groups would you say have had instruction that covers the mathematics content standards for the CAHSEE?

	Fewer Than 50%	50-74%	75-95%	Greater Than 95%
a....all your school's 10th grade students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b....10th grade students with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c....10th grade English learners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d....10th grade economically disadvantaged students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e....10th grade minority students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42. Which of the following has your school implemented to promote learning for all students? (Mark one response for each.)

	No Plan to Implement	Plan to Implement	Partially Implemented	Fully Implemented
a. School, teacher, and student access to appropriate instructional materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Encourage all students to take Algebra 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Individual student assistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Teacher and school support services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Student and parent support services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Teacher access to inservice training on content standards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Teacher access to inservice training on instructional techniques	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Administrator and teacher access to inservice training for working with diverse student populations and different learning styles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

43. What plans or strategies do you and your faculty/staff have to prepare for Individual Education Program (IEP) or 504 Plan changes that will address participation of a student with a disability in the CAHSEE? At what stage are you in implementing these?

44. What plans or strategies do you and your faculty/staff have to help English Learners (EL) overcome language barriers so they can succeed in meeting the requirements of the CAHSEE? At what stage are you in implementing these?

45. Please describe any specific challenges you feel your school and students face in successfully meeting the requirements of the CAHSEE.

46. Please describe any specific benefits for your school and students that you feel are associated with the requirements of the CAHSEE.

47. Please write any comments about other factors specific to your school that are influencing preparation for or performance on the CAHSEE (e.g., community conditions, economic changes, parental views, etc.)

Thank you for your cooperation.

California High School Exit Examination Evaluation (CAHSEE) Teacher Longitudinal Sample Survey Spring 2001

Teacher Name: _____

School Name: _____

SECTION 1 DIRECTIONS:

Please provide the following information by marking in the circle of the appropriate response or by writing an appropriate response. All teachers should complete Section 1 (pages 1-4). Section 2 or 3, depending on primary subject area, may be completed by the individual teachers or by a group of the appropriate subject area teachers.

1. What is your highest level of education?

- ☐ Bachelor's (4-year) degree
☐ Some graduate school
☐ Master's Degree
☐ Doctorate Degree
☐ Other (specify) _____

2. What is the primary subject area you teach?

- ☐ English-Language Arts (E-LA)
☐ Mathematics (Math)

3. Are you certified in your primary subject area?

- ☐ Yes
☐ No (specify other area) _____

4. What is your primary ethnic background?

- ☐ American Indian/Alaskan Native
☐ Asian or Pacific Islander
☐ Black or African American, not Hispanic origin
☐ Caucasian, not Hispanic origin
☐ Hispanic/Latino
☐ Other (specify) _____

5. What is your gender?

- ☐ Female
☐ Male

6. Including the 2000-2001 school year, how many years have you...

....been a teacher? _____
been a teacher in your primary subject area? _____
taught in your present school? _____

About You and Your Classes

For the purposes of this survey, please think of your typical classes and answer the following set of questions with an emphasis on your 9th and 10th grade students.

7. What grade level do you teach? (Mark all that apply.)

- ☐ 9th
☐ 10th
☐ 11th
☐ 12th

8. What is your average enrollment per class period this year?

9. What is the average percentage of the students in your classes who speak English fluently?

- ☐ 100%
☐ 90% - 99%
☐ 75% - 89%
☐ 50% - 74%
☐ Less than 50%

10. Think about the level of preparation that students in your classes have in your subject area -- math or English-Language Arts (E-LA) -- for proficiency on the CAHSEE.

If you are a **mathematics teacher**, estimate the overall average percentage of students in each of the following categories:

Excellent math preparation _____
 Good math preparation _____
 Fair math preparation _____
 Poor math preparation _____

Total = 100%

If you are an **English-Language Arts teacher**, estimate the overall average percentage of students in each of the following categories:

Excellent E-LA preparation _____
 Good E-LA preparation _____
 Fair E-LA preparation _____
 Poor E-LA preparation _____

Total = 100%

11. On average, how much time do you believe students in your classes spend each week on your assignments outside of the classroom?

- ☐ None
☐ Less than 1 hour
☐ 1 - 3 hours
☐ More than 3 hours

12. In general, how often do you plan for students in your classes to: ...?
(Please mark the appropriate circle for each of the following.)

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Once a Grading Period	Never or Hardly Ever
a. Do work from their textbooks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Do work from supplemental materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Work with hands-on materials, physical models or manipulatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Work in pairs or small groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Take quizzes or tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Be asked to apply subject area knowledge to real-world situations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Write a few sentences about a topic or its consequences (or math problem or its solution)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Write reports or complete projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Conduct research on issues or ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Present their work to the class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. During the current school year (2000-2001), how much time, in total, did you spend in professional development workshops, inservice, or seminars in your primary subject area. Include attendance at district-sponsored training and external training.

- ☐ None
- ☐ Less than 6 hours
- ☐ 6 - 15 hours
- ☐ 16 -35 hours
- ☐ More than 35 hours

About the California High School Exit Examination

14. How much do you know about the:

a. California High School Exit Examination (CAHSEE)?

- ☐ I do not know anything about the CAHSEE.
- ☐ I have only general information about the CAHSEE.
- ☐ I know what knowledge and skills are covered by the CAHSEE.
- ☐ I know the plans for administering the CAHSEE.

b. State Content Standards?

- ☐ I do not know anything about the state content standards.
- ☐ I have only general information about the content standards.
- ☐ I know essential information about the content standards.
- ☐ I am very knowledgeable about the content standards.

c. CAHSEE Score Report?

- ☐ I do not know anything about the CAHSEE score report.
- ☐ I have only general information about the CAHSEE score report and how to apply it.
- ☐ I know enough about information in the CAHSEE score report to use it for planning to change instruction.
- ☐ I am very knowledgeable about information in the CAHSEE score report and how to use it to change instruction.

15. What have been your sources of information about the CAHSEE? (Mark all that apply.)

- ☐ None
- ☐ School-provided information
- ☐ State-provided information
- ☐ District-provided information
- ☐ Newspaper
- ☐ Education organization (e.g., publication, meeting, etc.)
- ☐ Professional association (e.g., publication, meeting, etc.)
- ☐ Computer-based source (e.g., listserv, newsgroup, etc.)
- ☐ Other (specify) _____

16. Based on what you know about your feeder schools, how well prepared do you feel the students will be to pass the High School Exit Examination...

	Very Well Prepared	Well Prepared	Prepared	Not Well Prepared	Not At All Prepared
a....when they are in 9th grade?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b....when they are in 10th grade?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. a. During this school year (2000-2001), how much time, in total, do you estimate you have spent in activities related to the CAHSEE (e.g., faculty and department meetings, discussions, staff development, etc.)?

- ☐ None
☐ Less than 6 hours
☐ 6-15 hours
☐ 16-35 hours
☐ More than 35 hours

- b. How would you rate the quality of the professional development related to the California High School Exit Examination you have received this year...

	Excellent	Good	Fair	Poor
From local sources?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
From state sources?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. a. During this school year (2000-2001), how much time, in total, do you estimate you have spent on classroom instruction preparation activities related to the CAHSEE (e.g., department planning, lesson plan review, etc.)?

- ☐ None
☐ Less than 6 hours
☐ 6-15 hours
☐ 16-35 hours
☐ More than 35 hours

- b. How much classroom instruction time do you estimate you spent on activities that you would not have if it weren't for the CAHSEE (e.g., unit or course review, etc.)?

- ☐ None
☐ Less than 6 hours
☐ 6-15 hours
☐ 16-35 hours
☐ More than 35 hours

19. What activities did you personally undertake to prepare your students for the spring 2001 administrations of the CAHSEE? (Mark all that apply.)	For those activities you marked in the 1st column, mark the three (3) that you consider most important in CAHSEE preparation for your students.	For those activities you marked in the 1st column, mark the three (3) that you consider least important in CAHSEE preparation for your students.
<input type="radio"/> No special preparation	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Encourage students to work hard and prepare	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Encourage students (and through their parents) to take demanding courses	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Provide individual/group tutoring	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Teach test-taking skills	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Increase classroom attention to content standards covered by the CAHSEE in the weeks preceding the CAHSEE	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Work with feeder school teachers	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Modify my instruction	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Talk with my students	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Add homework	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Administer "early warning" tests	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Use class test results to change instruction	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Use class test results to design remedial instruction	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Encourage summer school attendance	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Suggest remedial classes rather than electives	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Talk or work with parents	<input type="radio"/>	<input type="radio"/>
<input type="radio"/> Other (specify)	<input type="radio"/>	<input type="radio"/>

[illegible]

For those activities you marked in the 1st column, mark the **three (3)** that you consider **least important** in CAHSEE preparation for your students.

[illegible]

21. Please describe any specific changes you plan to make in the future to your classroom instructional practices based on influences you anticipate from the CAHSEE.

22. Based on what you know about your school, what do you predict the impact of the CAHSEE, will be on...

	Strongly Positive	Positive	No Effect	Negative	Strongly Negative
a....student motivation prior to taking the exam for the first time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b....motivation to excel for students who pass the first time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c.... motivation to excel for students who fail the first time?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d....parental involvement prior to the first required administration of the exam?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e....parental involvement for students who pass the exam?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f....parental involvement for students who fail the exam?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g....student retention rates?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h....student dropout rates?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. Based on what you know about your school, what do you predict the influence of the CAHSEE will be on instructional practices...

	Considerably Improved	Improved	No Effect	Weakened	Considerably Weakened
a....next year (2001-2002)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b....in 3 years (2003-2004)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c....in 5 years (2005-2006)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Please describe any specific challenges you feel your school and students face in successfully meeting the requirements of the CAHSEE.

[illegible][illegible]

Please complete **Section 3** if you are a **Mathematics teacher**. (starting on p.12)

SECTION 2: About English-Language Arts(E-LA) and State Content Standards

DIRECTIONS: *Section 2 concerns the ways in which students are prepared to pass the English-Language Arts of the CAHSEE. Mathematics teachers should skip to Section 3.*

2-1 Indicate respondent for this section of the survey.

- ☐ Individual—English-Language Arts Teacher
- ☐ Group—English-Language Arts Department Members (How many? _____)
- ☐ Other (specify) _____

2-2 Based on your knowledge of the CAHSEE, at what level does your school's current curriculum cover the English-Language Arts standards tested by the CAHSEE?

- ☐ Less than 1/4
- ☐ 1/4 - 1/2
- ☐ About 3/4
- ☐ Almost all
- ☐ No knowledge of CAHSEE English-Language Arts standards

2-3 What plans does your district or school have to increase coverage of the English-Language Arts content standards assessed by the CAHSEE? (Mark all that apply.)

- ☐ Committee initiative to recommend modifying curriculum
- ☐ Inservice training to modify instructional practices
- ☐ Recommend changing graduation requirements to include English-Language Arts courses that enhance student success on the CAHSEE
- ☐ None- English-Language Arts content standards already fully covered
- ☐ Other (specify) _____

2-4 Based on your knowledge of the English-Language Arts standards assessed by the CAHSEE, what percentage of your current 9th grade students do you think will meet these standards by the end of 10th grade?

- ☐ Fewer than 50%
- ☐ 50-74%
- ☐ 75-95%
- ☐ Greater than 95%
- ☐ Unsure

2-5 In developing the CAHSEE, several questions were tried out for each of the content standards. The standards below are ones where student performance was particularly low in the tryouts. We would like to know in which courses, if any, these standards are taught. For each standard, please complete the following steps:

- 1 Decide whether it is taught in one or more of the courses offered in your district. If it is not, mark "Not Taught in Any Courses" and move to the next standard.
- 2 If it is taught, identify up to three courses from the list below where the standard is taught. For each course, mark the letter, A through K, which corresponds to the course title from the list. There also is space to add the title of an additional course where the standard is taught.
- 3 In the first two columns, mark one choice to indicate whether the standard is **partially** or **fully** taught in this course.
- 4 In the last two columns, mark whether the course is only taken by **some students** (1/4 to 3/4) or is taken by **most students** (more than 3/4). If fewer than 1/4 of your students take this course, do not mark either of these bubbles.

List of Selected English-Language Arts Courses	
(A) Comprehensive English-Grade 7	(G) World/Other Literature
(B) Comprehensive English-Grade 8	(H) Composition
(C) Comprehensive English-Grade 9	(I) Language Structure/Language Arts
(D) Comprehensive English-Grade 10	(J) English as a Second Language
(E) American Literature	(K) Developmental Reading
(F) English Literature	

SAMPLE

Standard	Course	Standard is		Course taken by	
		Partially Taught	Fully Taught	some (1/4-3/4) students	most (more than 3/4) students
Reading Comprehension (Focus on Informational Material) Comprehension and Analysis of Grade-Level Appropriate Text a. Standard 2.3-Generate relevant questions about readings on issues that can be researched.	Not Taught in Any Courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K)	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
	(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
	(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Reading Comprehension (Focus on Informational Materials)

- a. Standard 2.3-Generate relevant questions about readings on issues that can be researched.

☐ Not Taught in Any Courses

Course

(A B C D E F G H I J K)

(A B C D E F G H I J K)

(A B C D E F G H I J K)

Other (specify)

Standard is		Course taken by	
Partially Taught	Fully Taught	some (1/4-3/4) students	most (more than 3/4) students

☐

☐

☐

☐

☐

☐

☐

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☐

☐

☐

☐

☐

☐

- b. Standard 2.8-Evaluate the credibility of an author's argument or defense of a claim by critiquing the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text (e.g., in professional journals, editorials, political speeches, primary source material).

☐ Not Taught in Any Courses

Course

(A B C D E F G H I J K)

(A B C D E F G H I J K)

(A B C D E F G H I J K)

Other (specify)

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Literary Response and Analysis

- c. Standard 3.1-Articulate the relationship between the expressed purposes and the characteristics of different forms of dramatic literature (e.g., comedy, tragedy, drama, dramatic monologue).

☐ Not Taught in Any Courses

Course

(A B C D E F G H I J K)

(A B C D E F G H I J K)

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Other (specify)

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- d. Standard 3.7-Recognize and understand the significance of various literary devices, including figurative language, imagery, allegory, and symbolism, and explain their appeal.

☐ Not Taught in Any Courses

Course

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- e. Standard 3.8-Interpret and evaluate the impact of ambiguities, subtleties, contradictions, ironies, and incongruities in a text.

☐ Not Taught in Any Courses

Course

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(A B C D E F G H I J K)

(A B C D E F G H I J K)

Other (specify)

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- f. Standard 3.12-Analyze the way in which a work of literature is related to the themes and issues of its historical period. (Historical approach)

☐ Not Taught in Any Courses

Course

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(A B C D E F G H I J K)

Other (specify)

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Writing Strategies

- g. Standard 1.1-Establish a controlling impression or coherent thesis that conveys a clear and distinctive perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K

A B C D E F G H I J K

A B C D E F G H I J K

Other (specify)

Standard is		Course taken by	
Partially Taught	Fully Taught	some (1/4-3/4) students	most (more than 3/4) students

- h. Standard 1.2-Use precise language, action verbs, sensory details, appropriate modifiers, and the active rather than the passive voice.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K

A B C D E F G H I J K

A B C D E F G H I J K

Other (specify)

- i. Standard 1.5-Synthesize information from multiple sources and identify complexities and discrepancies in the information and the different perspectives found in each medium (e.g., almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents).

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K

A B C D E F G H I J K

A B C D E F G H I J K

Other (specify)

Written and Oral English Language Conventions

- j. Standard 1.2-Understand sentence construction (e.g., parallel structure, subordination, proper placement of modifiers) and proper English usage (e.g., consistency of verb tenses).

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K

A B C D E F G H I J K

A B C D E F G H I J K

Other (specify)

- k. Standard 1.3-Demonstrate an understanding of proper English usage and control of grammar, paragraph and sentence structure, diction, and syntax.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K

A B C D E F G H I J K

A B C D E F G H I J K

Other (specify)

Writing Applications (Genres and Their Characteristics)

- l. Standard 2.4-Write persuasive compositions:
- Structure ideas and arguments in a sustained and logical fashion.
 - Use specific rhetorical devices to support assertions (e.g., appeal to logic through reasoning; appeal to emotion or ethical belief; relate a personal anecdote, case study, or analogy).
 - Clarify and defend positions with precise and relevant evidence, including facts, expert opinions, quotations, and expressions of commonly accepted beliefs and logical reasoning.
 - Address readers' concerns, counterclaims, biases, and expectations.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K

A B C D E F G H I J K

A B C D E F G H I J K

Other (specify)

Writing Applications (Genres and Their Characteristics) - continued

- m. Standard 2.5 Write business letters:
 - a. Provide clear and purposeful information and address the intended audience appropriately.
 - b. Use appropriate vocabulary, tone, and style to take into account the nature of the relationship with, and the knowledge and interests of, the recipients.
 - c. Highlight central ideas or images.
 - d. Follow a conventional style with page formats, fonts, and spacing that contribute to the document's readability and impact.

☐ Not Taught in Any Courses

Course			students	students
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2-6 Please write any comments, specific to your district, schools, and students, about the English-Language Arts content standards, the CAHSEE, and opportunities for students to learn the content addressed by the standards.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Thank you for your cooperation.

SECTION 3: About Mathematics and State Content Standards

DIRECTIONS: Section 3 concerns the ways in which students are prepared to pass the mathematics standards tested by the CAHSEE. English-Language Arts teachers should skip this section.

3-1 Indicate respondent for this section of the survey.

- ☐ Individual—Mathematics Teacher
- ☐ Group—Mathematics Department Members (How many? _____)
- ☐ Other (specify) _____

3-2 Based on your knowledge of the CAHSEE, at what level does your school's current curriculum cover the mathematics standards tested by the CAHSEE?

- ☐ Less than 1/4
- ☐ 1/4 - 1/2
- ☐ About 3/4
- ☐ Almost all
- ☐ No knowledge of CAHSEE mathematics standards

3-3. What plans does your district or school have to increase coverage of the mathematics content standards assessed by the CAHSEE? (Mark all that apply.)

- ☐ Committee initiative to recommend modifying curriculum
- ☐ Inservice training to modify instructional practices
- ☐ Recommend changing graduation requirements to include mathematics courses that enhance student success on the CAHSEE
- ☐ None - Mathematics content standards already fully covered
- ☐ Hire more algebra teachers
- ☐ Other (specify) _____

3-4. Based on your knowledge of the mathematics standards assessed by the CAHSEE, what percentage of your current 9th grade students do you think will meet these standards by the end of 10th grade?

- ☐ Fewer than 50%
- ☐ 50-74%
- ☐ 75-95%
- ☐ Greater than 95%
- ☐ Unsure

3-5 In developing the CAHSEE, several questions were tried out for each of the content standards. The standards below are ones where student performance was particularly low in the tryouts. We would like to know in which courses, if any, these standards are taught. For each standard, please complete the following steps:

- 1 Decide whether it is taught in one or more of the courses offered in your district. If it is not, mark "Not Taught in Any Courses" and move to the next standard.
- 2 If it is taught, identify up to three courses from the list below where the standard is taught. For each course, mark the letter, A through K, which corresponds to the course title from the list. There also is space to add the title of an additional course where the standard is taught.
- 3 In the first two columns, mark one choice to indicate whether the standard is **partially** or **fully** taught in this course.
- 4 In the last two columns, mark whether the course is only taken by **some students** (1/4 to 3/4) or is taken by **most students** (more than 3/4). If fewer than 1/4 of your students take the course, do not mark either of these bubbles.

List of Selected Mathematics Courses	
(A) General Math	(G) (Plane) Geometry
(B) Math A	(H) Integrated Math I
(C) Math B	(I) Integrated Math II
(D) Pre-Algebra	(J) Consumer Math
(E) Beginning Algebra	(K) Remedial Math
(F) Intermediate Algebra	

SAMPLE

		Standard is		Course taken by	
		Partially Taught	Fully Taught	some (1/4-3/4) students	most (more than 3/4) students
Statistics, Data Analysis, and Probability (Grade 6): Students examine theoretical and experimental probabilities and use these to make predictions about events. a. Standard 3.5-Understand the difference between independent and dependent events.	<input type="radio"/> Not Taught in Any Courses				
	Course (A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K)				
	(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K)				
	(A) (B) (C) (D) (E) (F) (G) (H) (I) (J) (K)				
	Other (specify) _____				

Statistics, Data Analysis, and Probability (Grade 6): Students determine theoretical and experimental probabilities and use these to make predictions about events

- a. Standard 3.5-Understand the difference between independent and dependent events.

☐ Not Taught in Any Courses

Course

	Standard is		Course taken by	
	Partially Taught	Fully Taught	some (1/4-3/4) students	most (more than 3/4) students
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Algebra and Functions (Grade 7): Students graph and interpret linear and some nonlinear functions

- b. Standard 3.1-Graph functions of the form $y=n^2$ and $y=n^3$ and use in solving problems.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- c. Standard 3.4-Plot the values of quantities whose ratios are always the same (e.g., cost to the number of an item, feet to inches, circumference to diameter of a circle). Fit a line to the plot and understand that the slope of a line equals the [ratio of the] quantities.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Measurement and Geometry (Grade 7): Students know the Pythagorean theorem and deepen their understanding of plane and solid geometric shapes by constructing figures that meet given conditions and by identifying attributes of figures

- d. Standard 3.2-Understand and use coordinate graphs to plot simple figures, determine lengths and areas related to them, and determine their images under translations and reflections.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Algebra 1

- e. Standard 9.0-Students solve a system of two linear equations in two variables algebraically and are able to interpret the answer graphically. Students are able to solve a system of two linear inequalities in two variables and to sketch the solution sets.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- f. Standard 10.0-Students add, subtract, multiply, and divide monomials and polynomials. Students solve multi-step problems, including word problems, by using these techniques.

☐ Not Taught in Any Courses

Course

A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Algebra 1 - continued

- g. Standard 15.0-Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

☐ Not Taught in Any Courses

Course

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A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A B C D E F G H I J K	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 3-6. Please write any comments, specific to your district, schools, and students, about the mathematics content standards, the CAHSEE, and opportunities for students to learn the content addressed by the standards.**

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Thank you for your cooperation.

APPENDIX C

CAHSEE School Site Testing Coordinator Survey—Spring 2001

School Name:

1. What is your position?

- ☐ Principal
- ☐ Assistant Principal
- ☐ Test Coordinator
- ☐ Counselor
- ☐ Teacher
- ☐ Other (please specify)

☐ E-LA only

☐ Math only

☐ E-LA and Math

- ☐ CDE workshop
- ☐ Directions for school site testing coordinator
- ☐ Directions for test administrator
- ☐ District workshop
- ☐ Other (please specify)

[illegible]

☐ No

☐ Yes (please describe)

This image shows a blank sheet of white paper with ten horizontal black lines, evenly spaced from top to bottom. The lines are parallel and extend across the width of the page, providing a template for handwriting practice or note-taking. There are no margins, text, or other markings on the paper.

☐ No

☐ Yes (please describe)

[illegible]

7. What did you do to prepare proctors and monitors? (Mark all that apply.)

- ☐ No preparation
☐ Conducted workshop
☐ Distributed excerpts of AIR manuals
☐ Developed step-by-step procedure
☐ Described general requirements
☐ Other (please specify) _____

8. Did you take advantage of the option to have NCS pre-code answer sheets?

- ☐ No
☐ Yes

9. Will you take advantage of the pre-coding option for the next administration?

- ☐ No
☐ Yes
☐ Not sure

10. What proportion of students in each category do you estimate you tested?

	None	Fewer than Half	About Half	Most	All Present
English Learners (EL)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special Ed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Overall, how does the achievement level of the 9th graders who took the test compare with that of all 9th graders in your school?

- ☐ Much lower
☐ Lower
☐ About the same
☐ Higher
☐ Much higher

12. What accommodations did you provide for:

	Special Education Students? (Mark all that apply.)	EL students? (Mark all that apply.)
Calculators	<input type="radio"/>	<input type="radio"/>
Word glossary	<input type="radio"/>	<input type="radio"/>
Scribe	<input type="radio"/>	<input type="radio"/>
Reader	<input type="radio"/>	<input type="radio"/>
Braille	<input type="radio"/>	<input type="radio"/>
Large format booklets	<input type="radio"/>	<input type="radio"/>
Other (specify) _____	<input type="radio"/>	<input type="radio"/>

13. Do you expect to provide more accommodations the next time you administer CAHSEE?

- ☐ No
☐ Yes (please specify) _____

14. What did you do with students who finished the first section early?

- ☐ Had them go directly to the second section
☐ Had them stay in the room until the scheduled break
☐ Had them wait outside the room until the scheduled break
☐ Other (please specify) _____

15. What did you do with students who had not finished by the break between sessions?

- ☐ All students finished by the time scheduled for the break
☐ Delayed the break until all students had finished
☐ Had all students take the break and, if needed, finish the section after the break
☐ Had students who were not finished work through the break
☐ Moved students who were not finished to another room
☐ Other (please specify) _____

16. What did you do with students who had not finished by the time lunch was scheduled?

- ☐ All students finished by lunch
☐ Released students to lunch and had them come back to finish
☐ Had students work through lunch
☐ Other (please specify) _____

☐ Special school-wide activity

☐ Regular classes but revised schedule

☐ Regular classes and regular schedule

☐ Other (please specify) _____

- ☐ Higher attendance than normal
- ☐ No impact
- ☐ Lower attendance than normal

- ☐ Higher attendance than normal
- ☐ No impact
- ☐ Lower attendance than normal

- ☐ Guide individual counseling decisions
- ☐ Revise current courses
- ☐ Design remedial courses
- ☐ Other (please specify)

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Thank you for your cooperation.